THE CANADIAN GREAT LAKES BASIN

INTAKE OUTFALL ATLAS

(8 Volume Set)

Volume 8

AUGUST 1990

TD
223.3
C43
MOE

Ontario Environment
Environnement
Jim Bradley, Minister/ministre

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CANADIAN GREAT LAKES BASIN

INTAKE - OUTFALL ATLAS

VOLUME 8

ST. LAWRENCE RIVER

by
Kleinfeldt Consultants Limited

AUGUST 1990

M. Griffiths (ed)

Water Resources Branch
ONTARIO MINISTRY OF THE ENVIRONMENT

1990, Her Majesty the Queen in Right of Ontario

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CANADIAN GREAT LAKES BASIN INTAKE/OUTFALL ATLAS

GUIDE TO USE

INTRODUCTION

The Canadian Great Lakes Basin Intake/Outfall Atlas will be used by various public organizations as well as private concerns for water quality assessment studies, pollution control plans, investigation of bacterial pollution problems at bathing beaches and in the formulation of long range management strategies.

The Canadian Great Lakes Basin, Intake Outfall Atlas is composed of eight separate volumes as listed below:

Volume 1 - Lake Superior
Volume 2 - St. Marys River
Volume 3 - Lake Huron/Georgian Bay
Volume 4 - St. Clair River/Lake St. Clair/
Detroit River
Volume 5 - Lake Erie
Volume 6 - Niagara River/Welland Canal/Welland River
Volume 7 - Lake Ontario
Volume 8 - St. Lawrence River

For the purposes of this project, questionnaires were sent to appropriate individuals at public and private intake and outfall facilities. Facilities may fall into any one of the industrial categories, or it can be a municipally or provincially operated Water Treatment Plant (WTP) or a Sewage Treatment Plant (STP). Municipalities were also contacted for information regarding various outfalls such as storm, combined, and sanitary sewers that discharge to the Great Lakes System or tributary stream. The bulk of the data were received by Kleinfeldt between December 1986 and June 1987.

A list of Ontario municipal, provincial and private industrial operations was developed using several sources including: IMIS and UMIS listings, from the Water and Wastewater Management Section, Regional Abatement and Utility Officers, Reports from the International Joint Commission, earlier versions of this Atlas, reports and discussions with various individuals. In order to be included in this Atlas identified operations must either discharge effluent (including cooling water and stormwater) to the Canadian Great Lakes or draw water from the the system. These operations must be located within 2 kilometres of the Great Lakes System shoreline. The Great Lakes System includes all Great Lakes within Canadian boundaries as well as the major Interconnecting Channels.

A report summarizing discharging operations and receiving water bodies has been prepared and submitted, under separate cover, to the Great Lakes Section.

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USING THE ATLAS

I General Layout

The Atlas begins with Volume 1 representing Lake Superior and ends with Volume 8, representing the St. Lawrence River, thus following a general west to east flow. Mapping of the Great Lakes shoreline is accomplished by using continuous and overlapping hydrographic charts and topographic maps.

Each map contains a legend of symbols for quick reference, an orientation arrow indicating the north direction and a bar scale. When working with each map, check the scale as it may vary between maps.

II Legends

Legends provided on each map are self-explanatory. In the case of shore based effluent pipes, including sewer system outfalls, the arrowhead indicating outfall location is on the land side of shoreline. Similarly shore based intakes have their location indicators on the water side of the shoreline. Thus, location indicators also illustrate direction of flow through any given pipe. In some situations, because of pipe length and available map scale, offshore effluent and water intake pipes have been illustrated as shore based, however, consultation with the facing data page will give exact data on length of pipe from shore.

III Maps

Each map is numbered and is accompanied by a data page. Information on industrial, provincial or municipal intake or outfall structures within a map's borders is detailed on the data page. All intakes and outfalls, (excluding sewer system outfalls) have a numerical designation located as close to the actual structure as possible. These numerical designations begin at one (1) for each map, and relate to the "Structure Number" category on each data page. Although limited to descriptions of seven (7) structures per page there can be more than one data page relating to a simple map.

IV General

If a particular structure appears in the area of overlap between two maps the structure will be presented on one map only. However, where there is map duplication (i.e. between volumes) the structures will be mapped and data presented in both volumes.

Water and sewage treatment operations are listed by plant name. The Atlas user should refer to the location category in the data tables for identification of plant location. The abbreviations WPCP and STP describe sewage treatment operations and are assigned to an operation based on MOE designations.

V Lists of Operations:

In order to assist the user in locating the required information on a particular operation, we recommend that the user begin with our lists given below. Please note, these lists do not include municipal jurisdictions that provided sewer/drainage system information only.

Table 1: Listing of all operations that have major intake/outfall structures mapped and tabulated in the Atlas. Does not include municipal sewer/drainage outfalls.

Table 2: Listing of all operations within a given volume and a corresponding index.

Table 3: Listing of industrial operations not responding to the questionnaire (Information was subsequently supplied by the MOE).

VI Abbreviations:

Before using the Atlas it is recommended the user be familiar with the abbreviations presented in Table 4.

VII Explanation of Data Tables:

Table 5 provides a brief explanation of each information category to improve the clarity for the user.

Acknowledgments

The Canadian Great Lakes Basin Intake/Outfall Atlas was compiled by Kleinfeldt Consultants Limited, and with the assistance of the Great Lakes Section of the Ontario Ministry of the Environments's Water Resources Branch.
Kleinfeldt Consultants wishes to thank Mrs. Marta Griffiths of the MOE's Great Lakes Section for her time and patience exhibited throughout the course of this project.

We also acknowledge the efforts of Ministry of the Environment personnel, in the Great Lakes Section, as well as, Regional and District Offices who took the time and made the effort to review the data and maps contained in the Atlas, and provided comments, suggestions and additional information. Their efforts have allowed us to improve the document and hence the overall utility of the Atlas.

Kleinfeldt Consultants would also like to take this opportunity to thank the individuals in the ministry, local municipality and industry that provided information on 500 plus operations included in this Atlas. Without the cooperation and and timely responses from the majority of contacts, this project would not have been a success.

Disclaimer

The information contained in this Atlas is as accurate as the information supplied in the completed and returned questionnaires. Due to the nature of the data collection, Kleinfeldt Consultants Limited is not responsible for erroneous information supplied by any one of the 400 plus operations.

Table 1

ALL OPERATIONS INCLUDED IN THE ATLAS

Lake Superior	St. Marys River	Lake Huron/Geaorgian Bay	St. Clair Systea	Lake Erie	Welland Canal/Niagara R.	Lake Ontario	St. Lawrence River
Abitibi Price Inc.	Algoma Steel Corp.	Blind River STP	Amherstburg WPCP	Amherstburg WPCP	Anger Ave. WPCP	Ajax WTP	BCL
Abitibi Price T.Bay Div.	Sault. Ste. Marie WPCP(1)	Brights Grove STP	Amherstburg WSS	Blenheia WSS	Atlas Specialty Steels	Amherstveiw WSS	Brockville WPCP
Canada Malting Co.	Sault. Ste. Marie WPCP(2)	Bruce A N6S	Belle River WPCP	Cen. Haldiman Norfolk WSS	B.F. Goodrich Canada	Bakelite Thermosets	Brockville WTP
Domtar Packaging Ltd.	Sault. Ste. Marie WTP(1)	Bruce B N6S	Belle River WTP	Crystal Beach WPCP	Canadian Oxy-Chemicals	Baker Road WPCP	Cardinal WPCP
James River-Marathon Ltd.	Sault. Ste. Marie WTP(2)	Bruce Heavy Water Plant	Canadian Liquid Air	Crystal Beach WTP	Casco Company	Bath WPCP	Cardinal WTP
Kimberly Clark Can. Ltd	St. Marys Paper Inc.	Bruce Mines STP	Canadian Salt Co. (1)	Dunvillle WTP	Cyanamid N. Falls Plant	Bath WTP	Casco Company
Marathon STP	Union Carbide Canada Ltd.	Bruce Mines WTP	Canadian Salt Co. (2)	Elgin Area WSS	Cyanamid Welland Plant	Beamsville WTP	Charlottenburgh TWP. WTP
Nipigon STP		CIL /McDougall TWP	Chinnok Chemical Co.	Erieau Erie Beach WSS	Domtar Fine Papers	Belleville WPCP	Cornwall WPCP
Nipigon WTP		Collingwood WPCP	CIL Inc. Lampton Works	Harrow Colchester WSS	Electro Minerals(CAN)Inc.	Belleville WTP	Cornwall WTP
Northern Wood Preservers		Collingwood WTP	Corunna WPCP	H. J. Heinz Co.	Fleet Manufacturing Co.	Biggar Lagoon	Courtaulds Ltd.
Pancake Bay Prov. Park		Domtar Inc. Sifto Salt	Courtright WPCP	Inco Metals Inc.	Ford Motor Co.	Borg-Warner Chemicals	Domtar Fine Paper
Provincial Paper Division		Douglas Point N6S	Dow Chemical Canada Ltd.	Int. Min. & Chemicals	Fort Erie North Pump Stn.	Bowmanville WTP #1	Dupont Canada
Red Rock WPCP		Eldorado Resources Ltd.	DuPont Canada Inc.	Kent County WSS	Fort Erie South Pump Stn.	Bowmanville WTP #2	Edwardsburg WPCP
Red Rock WTP		Goderich WPCP	Edgewater Beach WPCP	Leamington WPCP	General Motors of Can.Ltd	Brighton STP	Gananoque Lagoon
Rossport WTP		Goderich WTP	Esso Petroleum Canada	Nanticoke TGS	Hayes Dana Dr. Train Div.	Burlington WTP	Gananoque WTP
Schreiber STP		Goodyear Canada Inc.	Ethyl Canada Inc.	Onstead Foods Ltd.	Holiday Farms	Canada Cement Lafarge Ltd	Iroquois STP
Schreiber WTP		Goodyear Canada Inc.	Fiberglass Canada Inc.	Port Burwell WPCP	Inco Metals Ltd.	Canada Malting Co. Ltd.	Iroquois WTP
Thunder Bay TGS		Gore Bay WPCP	Ford Motor Co. of Can.Ltd	Port Dover WPCP	Kimberly Clark Of Canada	Canadian Vegetable Oil	Kingston (City) WPCP
Thunder Bay WPCP		Gore Bay WTP	General Chemical	Port Dover WTP	Niagara Falls WTP	Canron Inc.	Kraft Foods Ltd.
Thunder Bay WTP		Grand Bend STP	General Motors of Canada	Port Rowan WPCP	Niagara-on-the-Lake STP	Celanese Canada Inc.	Long Sault WPCP
		Kilbear Provincial Park	Hiram Walker & Sons Ltd	Port Rowan WTP	Niagara-on-the-Lake WTP	CFB Mountainveiw WTP	Long Sault WTP
		Kincardine WPCP	J. C. Keath TGS	Port Stanely WTP	Norton Co.	CFB Trenton WPCP	Marimac Inc.
		Kincardine WTP	Lampton County WSS	Port Stanley STP	Ontario Paper Co.	Chrysler Canada Ltd.	Morrisburg WPCP
		Lake Huron WSS	Lampton TGS	Raliegh TWP STP	Ontario Power Co.	Clarkson WPCP	Morrisburg WTP
		Lions Head WTP	Little River WPCP	Rock Pt. Provincal Park	Port Weller WPCP	Cobourg STP #1	Nitrochem Inc.
		Little Current WTP	Mitchells Bay WPCP	Romney WPCP	Seaway WPCP	Cobourg STP #2	Osnabruck TWP WPCP
		McGregor Point Prov. Park	Mitchells Bay WTP	Rosehill WTP	Sir Adam Beck #1 N6S	Cobourg WTP	Osnabruck TWP WTP
		Meaford WPCP	Novacor Chemicals	Selkirk Provencial Pk.	Sir Adam Beck #2 N6S	Corbett Creek WPCP	Phillips Cables
		Meaford WTP	Petrosar Corunna	Stelco Inc. Erie Works	Stampford/Niagra STP	Darlington N6S	Prescott WTP
		Midland WPCP	Point Edward WPCP	Texaco Canada Inc.	Stelco Inc. Page Hersey	Deseronto WPCP	Richmond Die Casting Ltd.
		Mitsubihi Electronics	Polysar Ltd.	Turkey Pt. Provincial Pk.	Stelco Inc. Welland Tube	Deseronto WTP	River St. Pumping St
		Owen Sound WPCP	Port Lampton WPCP	Union Gas Ltd.	Stevensville Lagoon	Dofasco Inc.	Rohm & Hass Canada Inc.
		Owen Sound WTP	Sarnia WPCP	Union WSS	Union Carbide Canada Ltd.	Domtar Packaging	
		Parry Sound WTP	Shell Canada Ltd.	West Lorne WTP	Welland WPCP	Domtar Wood Preserving	
		Penetanguishene WPCP	Sombra WPCP	Wheatly WTP	Welland WSS	Duffins Creek WPCP	
		Penetang. Hospital STP	Stoney Point WPCP			DuPont Canada Ltd.	
		Petrolia WTP	Sunoco Inc.		West Side WPCP	Easterly Filtration Plant	
		Port Elgin WTP	The Segram Co. Ltd.			Eldorado Resource Ltd.(1)	
		Port McNicoll STP	Tilbury North WSS			Eldorado Resource Ltd.(2)	
		Port McNicoll WTP	Tilbury WTP			Eldorado Resource Ltd.(3)	
		Rio Algom Ltd.	Wallaceburg WPCP			Elizabeth Gardens PS	
		Southampton WPCP	Wickes Bumper Co. Ltd.			E.D. Smith Limited	
		Southampton WTP	Windsor PUC WTP			Ford Motor Co. of Can.Ltd	
		Standard Aggregates Inc.	Windsor Tecumseh WTP			General Motors of Canada	
		Thessalon Pump House	Windsor WPCP			Goodyear Canada	
		Thessalon STP				Graham Creek WPCP	
		Thornbury WPCP				Grimsby WTP	
		Thornbury WTP				Hamilton Wentworth WPCP	

Table 1

ALL OPERATIONS INCLUDED IN THE ATLAS

Lake Superior	St. Marys River	Lake Huron/Geaorgian Bay	St. Clair System	Lake Erie	Welland Canal/Niagara R.	Lake Ontario	St. Lawrence River
		TWP of Assignack WPCP				Hamilton Wentworth WTP	
		TWP of Assignack WTP				Harmony Creek WPCP 1&2	
		Victoria Harbour WPCP				Highland Creek STP	
		Victoria Harbour WTP				Humber STP	
		Waubaushene WTP				Island Filtration Plant	
		Wiarton WPCP				Kingston TWP WPCP	
		Wiarton WTP				Kingston TWP WTP	
						Kingston WPCP	
						Kingston WTP	
						Lake Ontario Cement	
						Lakeveiw TGS	
						Lakeview WPCP	
						Lakeview WTP	
						LASCO Steel	
						Lennox TGS	
						Lever Brothers	
						Long Branch STP	
						Lorne Park WTP	
						Main STP	
						Manson Insulation	
						New Toronto WTP	
						Newcastle WTP	
						Niagara-on-the-Lake STP	
						Niagara-on-the-Lake WTP	
						Oakville WTP	
						Oshawa WTP	
						Petro Canada Products (1)	
						Petro Canada Products (2)	
						Pickering NGS	
						Picton STP	
						Picton WTP	
						Point Anne WTP	
						Port Dalhousie WPCP	
						Port Darlington WPCP	
						Port Hope WPCP	
						Port Hope WTP	
						Port Weller WPCP	
						Prince Edward Hgts. WPCP	
						Pringle Creek WPCP 1&2	
						Redpath Sugar	
						River St. Pumping St	
						R. C. Harris WTP	
						R. L. Clark WTP	
						R. L. Hearn TGS	
						Sandhurst Shores WTP	
						Scarborough Pump St.	
						Shell Canada Ltd.	
						Skyway WPCP	

Table 1

ALL OPERATIONS INCLUDED IN THE ATLAS

Lake Superior	St. Marys River	Lake Huron/Geaorgian Bay	St. Clair System	Lake Erie	Welland Canal/Niagara R.	Lake Ontario	St. Lawrence River
						South East WPCP	
						South West WPCP	
						Stelco Inc Parkdale Works	
						Stelco Inc.	
						St. Lawrence Cement	
						St. Lawrence Starch Co.	
						St. Marys Cement Co.	
						Texaco Canada Inc. (1)	
						Texaco Canada Inc. (2)	
						Trenton WPCP	
						Trenton WTP	
						TWP of Etobicoke STP	
						Union Carbide Can. Ltd.	
						Victory Soya Mills	
						Vineland WTP	
						Waupoos Canning Co. Ltd.	
						Wellington Mushroom Farm	
						Wellington WPCP	
						Whitby WTP	

Table 2

OPERATIONS INCLUDED IN VOLUME 8
ST. LAWRENCE RIVER

Operation	Map Number
BCL	27
Brockville WPCP	12
Brockville WPCP	13
Brockville WTP	13
Cardinal WPCP	19
Cardinal WTP	19
Casco Company	19
Charlottenburgh TWP WTP	29
Cornwall WPCP	27
Cornwall WTP	26
Courtaulds Ltd.	27
Domtar Fine Paper	27
Dupont Canada	14
Edwardsburg WPCP	17
Gananoque Lagoon	5
Gananoque WTP	5
Iroquois STP	20
Iroquois WTP	20
Kingston (City) WPCP	1A
Kraft Foods Ltd.	24
Long Sault WPCP	25
Long Sault WTP	25
Marimac Inc.	27
Morrisburg WPCP	22
Morrisburg WTP	22
Nitrochem Inc.	14
Osnabruck TWP WPCP	24
Osnabruck TWP WTP	24
Phillips Cables	13
Prescott WTP	16
Richmond Die Casting Ltd.	29
River St. Pumping St	1A
Rohm & Hass Canada Inc.	22

Table 3

INDUSTRY NOT RESPONDING TO QUSTIONNAIRE

INFORMATION OBTAINED FROM MOE

Name of Operation	Location	Comments
Arrowhead Metals	Toronto	No applicable intake or outfall structures
BCL	Cornwall	From Southeast Regional Office
Courtaulds	Cornwall	From Southeast Regional Office
Domtar Construction Materials	Thorold	From Welland District Office
Domtar Wood Preservers	Trenton	From Southeast Regional Office
Du Pont	Corunna	From Southwest Regional Office
Du Pont	Kingston	From Southeast Regional Office
Du Pont	Whitby	No applicable intake or outfall structures
Du Pont	Maitland	From Southeast Regional Office
Esco Ltd.	Whitby	No applicable intake or outfall structures
Fittings Ltd.	Whitby	No applicable intake or outfall structures
Ford Motor Co. of Canada	Essex Engine Plant	No applicable intake or outfall structures
Ford Motor Co. of Canada	Windsor Engine Plant	From Southwest Regional Office
General Chemicals	Sombra	From Southwest Regional Office
Holiday Farms	Niagara Falls	From Welland District Office
Kraft Ltd.	Williamstown	No applicable intake or outfall structures
Kraft Ltd.	Wolfe Island	No applicable intake or outfall structures
Kraft Ltd.	Ingleside	From Southeast Regional Office

Table 4

LIST OF ABREVIATIONS

CEN	Central
CFB	Canadian Forces Base
CSO	Combined Sewer Overflow
DND	Department of National Defence
EO	Emergency Overflow
IND	Industrial Operation
MGS	Ministry of Government Services
MNR	Ministry of Natural Resources
MOE	Ministry of the Environment
MUN	Municipal Operation
NA	Not Available
NGS	Nuclear Generating Station
P Removal	Phosphorus Removal
PP	Provincal Park
PS	Pumping Station
PUC	Public Utilities Commission
RM	Regional Municipality
S	Sanitary Sewer Overflow
SS	Storm Sewer
STP	Sewage Treatment Plant (same as WPCP)
TGS	Thermal Generating Station
TWP	Township
UV	Ultra-Violet
WPCP	Water Pollution Control Plant (same as STP)
WSS	Water Supply System
WTP	Water Treatment Plants

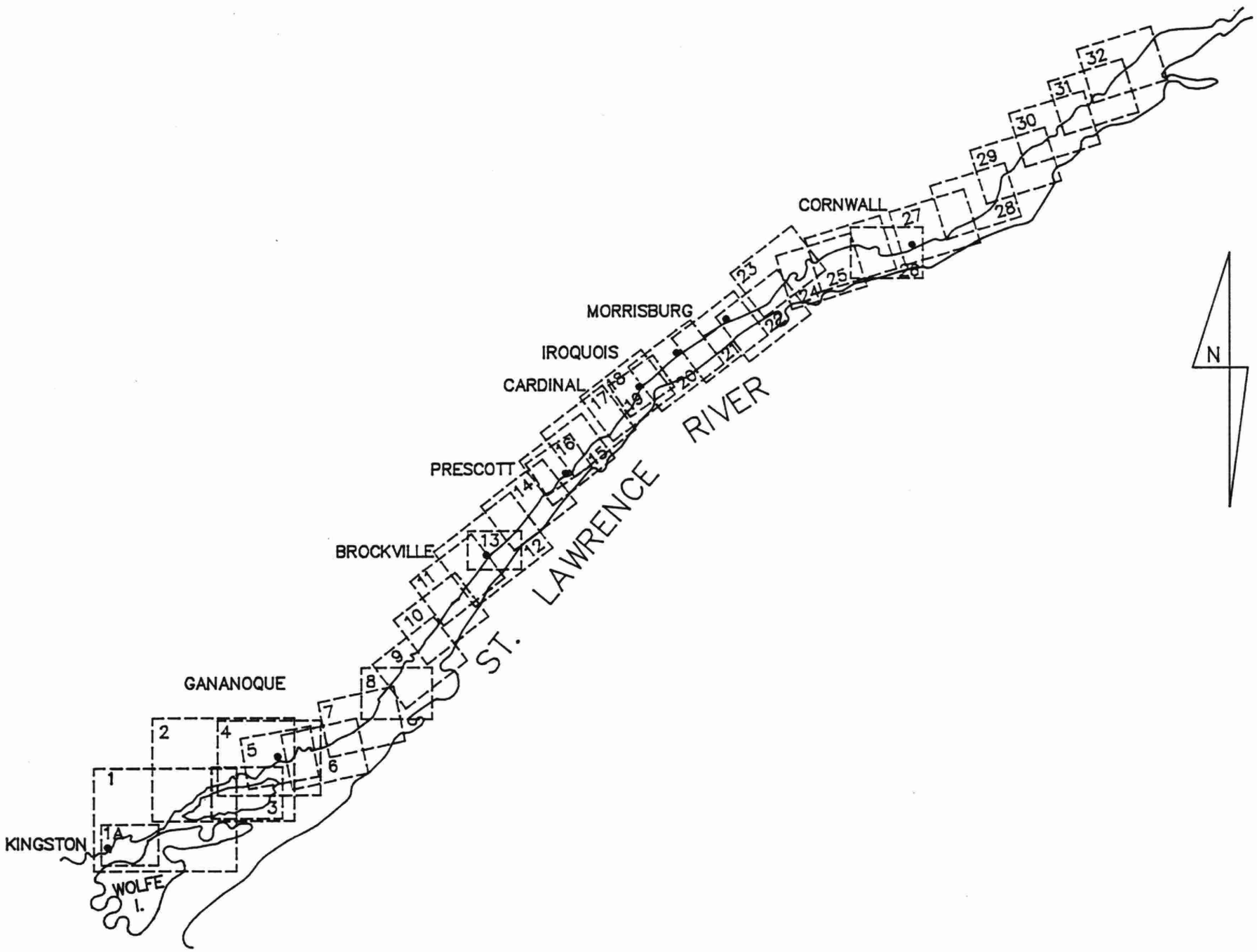
TABLE 5 **EXPLANATION OF DATA TABLES**

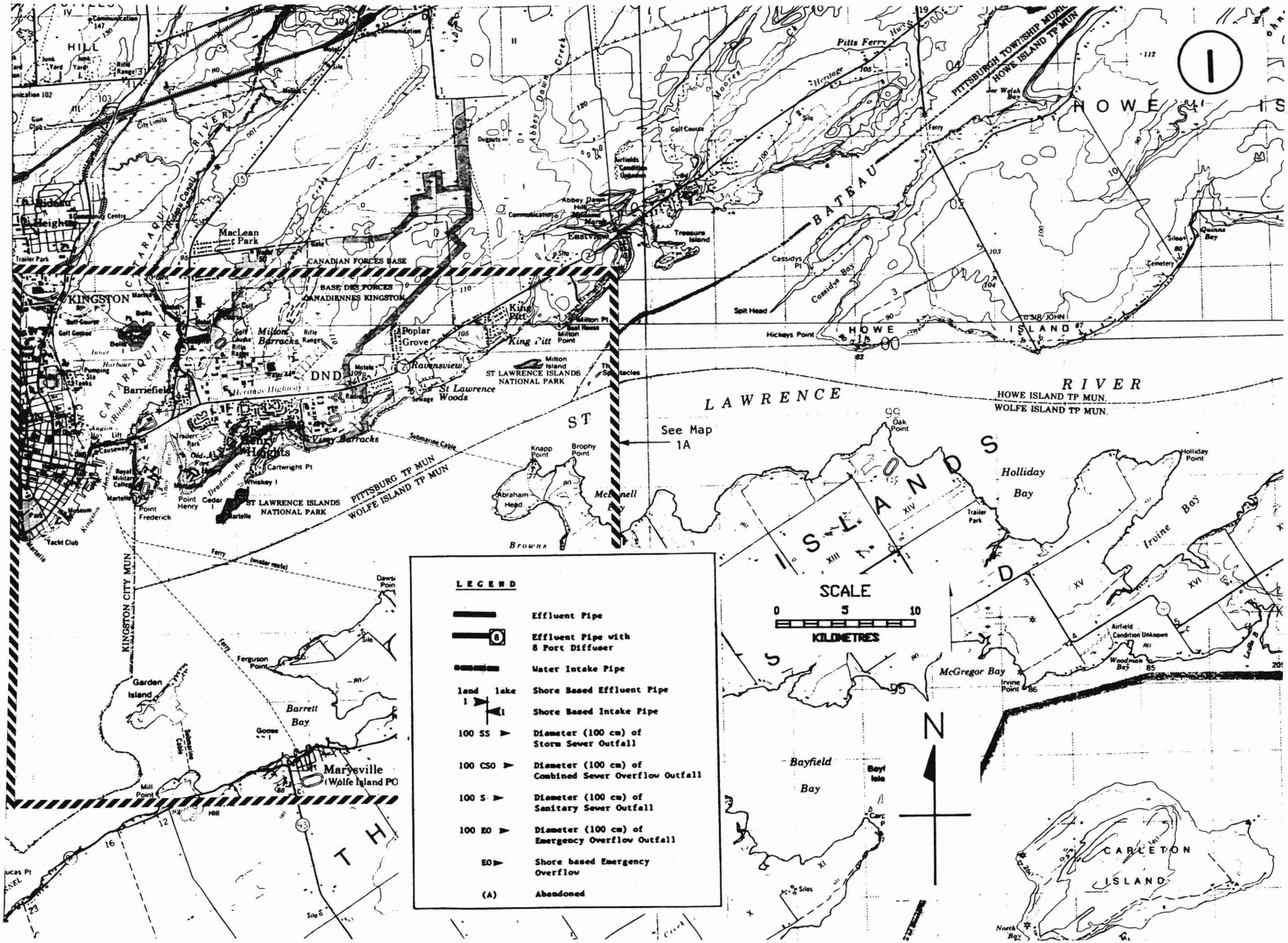
Name of Operation:	Name of municipality or industry
Intake/Outfall:	Indication of Use of pipe
UMIS/IMIS No.:	Number in the Ministry's Utility Monitoring Information System and Industrial Monitoring Information System from which other data can be obtained.
Structure No.:	Indicates structures on the accompanying map.
Map No.:	Indicates map on which the structure can be located.
Operating Authority:	Identifies who owns or has jurisdiction over the facility i.e. Industry, MOE, MNR, MUN, PUC, MGS, etc.
Location:	Identifies where the facility and accompanying structures are located (usually indicated by as City, Town or Township).
Supplier/Receiver:	Identifies the water body that wither supplies water to a facility via the intake, or receives effluent via the outfall.
Point of Discharge:	Applies to outfalls only. Indicates location of discharge i.e. shore (0-99 m from shoreline), offshore (¶100m for shoreline), harbour, embayment, river mouth (0-2 km upstream from lake).
Terminal Basin:	Lake or river basin, from which water is drawn or effluent discharged to
Activity:	General categorization of a particular facility (eg. Steel Production, Municipal Water Treatment, etc.)
Process Type:	Description of activity (eg. Major phases of Steel production, Physical and Chemical Treatment, Secondary Treatment, etc.)
Supply/Discharge Type:	Description of how water is drawn in, or effluent discharged (eg. Continuous, Batch Seasonal, etc.)

Treatment Type:	Description of how water and/or effluent is treated before use/before discharge. Indication of major steps in treatment, if any.
Comments:	Any other remarks relating to the operation, its intakes or outfalls, process or treatment activities, such as plant closures, future modifications, relationship with nearby operations, etc;
Design Flow:	Quantity (in 1,000 m^3/day) of water can be drawn in via intake or discharged via outfall according to design specifications.
Mean Annual Flow:	Quantity (in 1,000 m^3/day) on the average, of water can be drawn in via intake or discharged via outfall according to design specifications.
Pipe Length from Shore:	Length of intake/outfall pipe from shore, given in metres.
Pipe Diameter:	Given in centimeters. If pipe is rectangular or oval in shape, the largest dimension is given.
Water Depth at End of Pipe:	Depth of water, in metres, at the end of the pipe.
Water Depth above End of Pipe:	Depth of water, in metres, above the end of the pipe.
Diffuser:	Applies to outfall structures only. Indicates if an effluent diffusing structure is present on the outfall.
Number of Ports:	If diffuser is present on the outfall an indication is given to the number of ports in the diffusing structure.

KEY PLAN

ST. LAWRENCE RIVER
KEY PLAN




1
HOWE ISLAND
CANADIAN FORCES BASE
BASE DES FORCES CANADIENNES KINGSTON
KINGSTON
MacLean Park
Milton Barracks
Poplar Grove
Ravensview
St Lawrence Woods
Barriefield
Point Henry
Cedar I
Point Frederick
Cartwright Pt
Whiskey I
Dead Man Bay
Dugarts
Abbey Dawn
Eastview
Treasure Island
Cassidys Pt
Cassidy Bay
Spit Head
Hickeys Point
Milton Pt
Milton Island
ST LAWRENCE ISLANDS NATIONAL PARK
Knapp Point
Brophy Point
Abraham Head
Browns
McDonnell
Oak Point
Holliday Bay
Holliday Point
Irvine Bay
Trailer Park
Airfield Condition Unknown
Woodman Bay
McGregor Bay
Irvine Point
Quinns Bay
Silos
Cemetery
Golf Course
Ferry
Heritage
Moores
Pitts Ferry Hbr
Welsh Bay
Sir John
Yacht Club
Museum
Tanks
Pumping Sta
Harbour
Inner
Causeway
Lift
Bells
Rifle Ranges
Motels
Radio
Sewage
Submarine Cable
Ferry (water route)
Ferguson Point
Garden Island
Barrett Bay
Goose I
Marysville (Wolfe Island PO)
Mill Point
Hill
Lucas Pt
Bayfield Bay
Bayfield Isle
CARLETON ISLAND
North Bay
Creek
Dawson Point
KINGSTON CITY MUN
PITTSBURG TP MUN
WOLFE ISLAND TP MUN
PITTSBURGH TOWNSHIP MUNI
HOWE ISLAND TP MUN
HOWE ISLAND TP MUN.
WOLFE ISLAND TP MUN.
CATARAQUI RIVER
ST LAWRENCE RIVER
See Map 1A
SCALE
0 5 10
KILOMETRES
N
LEGEND
Effluent Pipe
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake
Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS ► Diameter (100 cm) of Storm Sewer Outfall
100 CSO ► Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S ► Diameter (100 cm) of Sanitary Sewer Outfall
100 EO ► Diameter (100 cm) of Emergency Overflow Outfall
EO► Shore based Emergency Overflow
(A) Abandoned

Name	River St. Pumping St	Kingston (City) WPCP	Kingston (City) WPCP				
Intake/Outfall	Emergency Outfall	Outfall	Intake				
OMIS/IMIS No.	120000159	120000159	120000159				
Structure No.	1	2	3				
Map Number	1A	1A	1A				
Operating Authority	MUN	MUN	MUN				
Location	Kingston (City)	Ravensview	Kingston (City)				
Supplier/Receiver	Big Cataraqui River	St. Lawrence R./L.Ontario	St. Lawrence R./L.Ontario				
Point of Discharge	River Mouth	Offshore					
Terminal Basin	St.Lawrence R./L. Ontario	St. Lawrence River	St. Lawrence River				
Activity	Sewage Pumping Station	Municipal Sewage Treatment	Municipal Sewage Treatment raw water intake				
Process Type	NA	Primary Treatment	Primary Treatment				
Supply/Discharge Type	Periodic	Continuous	Batch				
Treatment Type	None	Primary Settling Lagoons P Removal-Continuous Chlorination	None				
Comments	Discharge of Municipal Sewage during periods of heavy rain		Raw water intake for process water only.				
Design Flow (1000m3/day)	136.10	61.40	NA				
Mean Annual Flow (1000m3/day)	NA	59.10	0.10				
Pipe length from shore (m)	180.00	180.00	10.00				
Pipe Diameter (cm)	120.00	105.00	15.00				
Water Depth at end of pipe (m)	2.70	14.00	2.00				
Water depth above end of pipe (m)	1.50	12.00	1.50				
Diffuser	NO	YES					
Number of ports		14					

IA

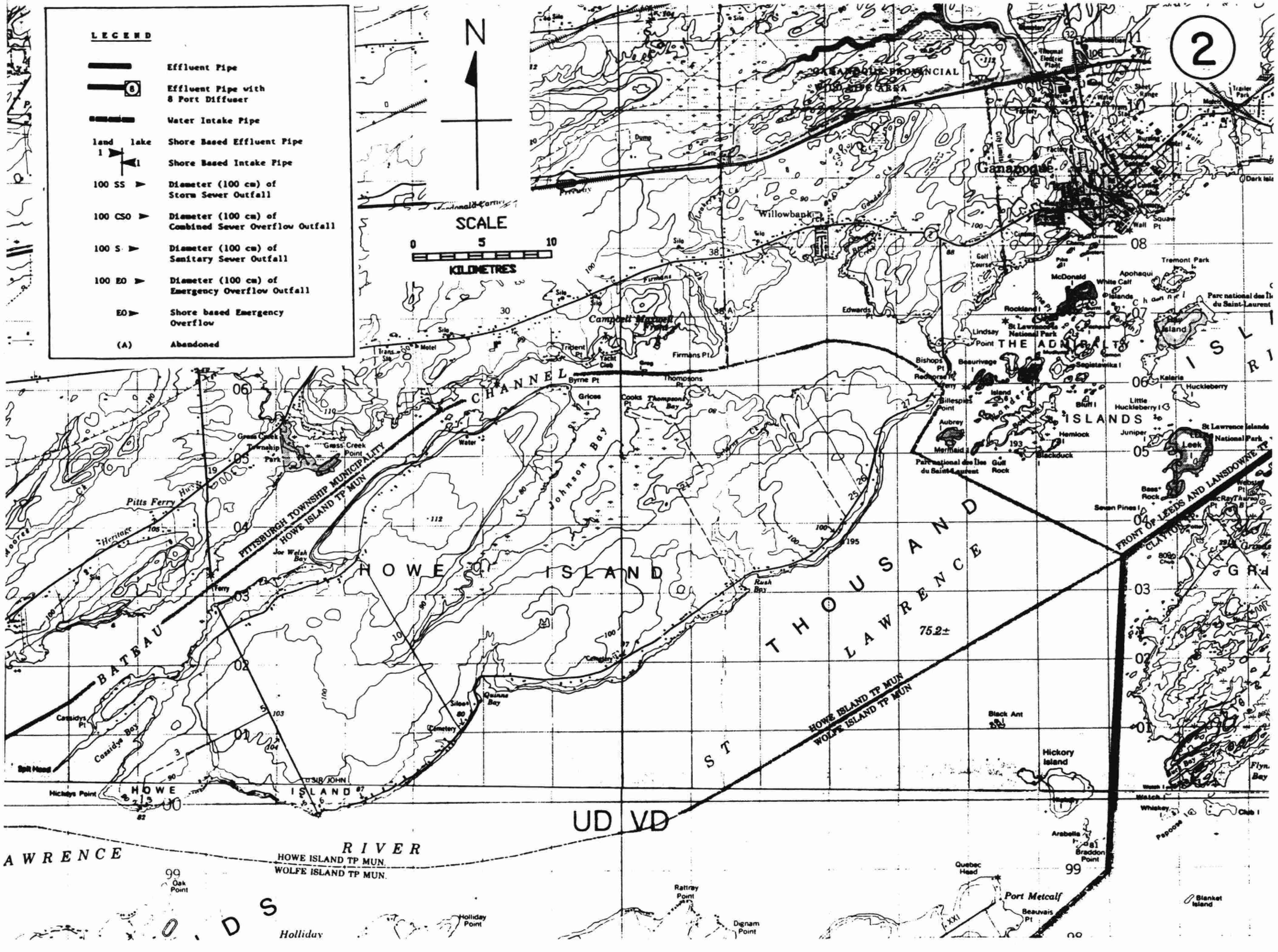
LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land lake — Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS — Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO — Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S — Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO — Diameter (100 cm) of Emergency Overflow Outfall
- EO — Shore based Emergency Overflow
- (A) — Abandoned

SCALE
0 METRES 500 1000

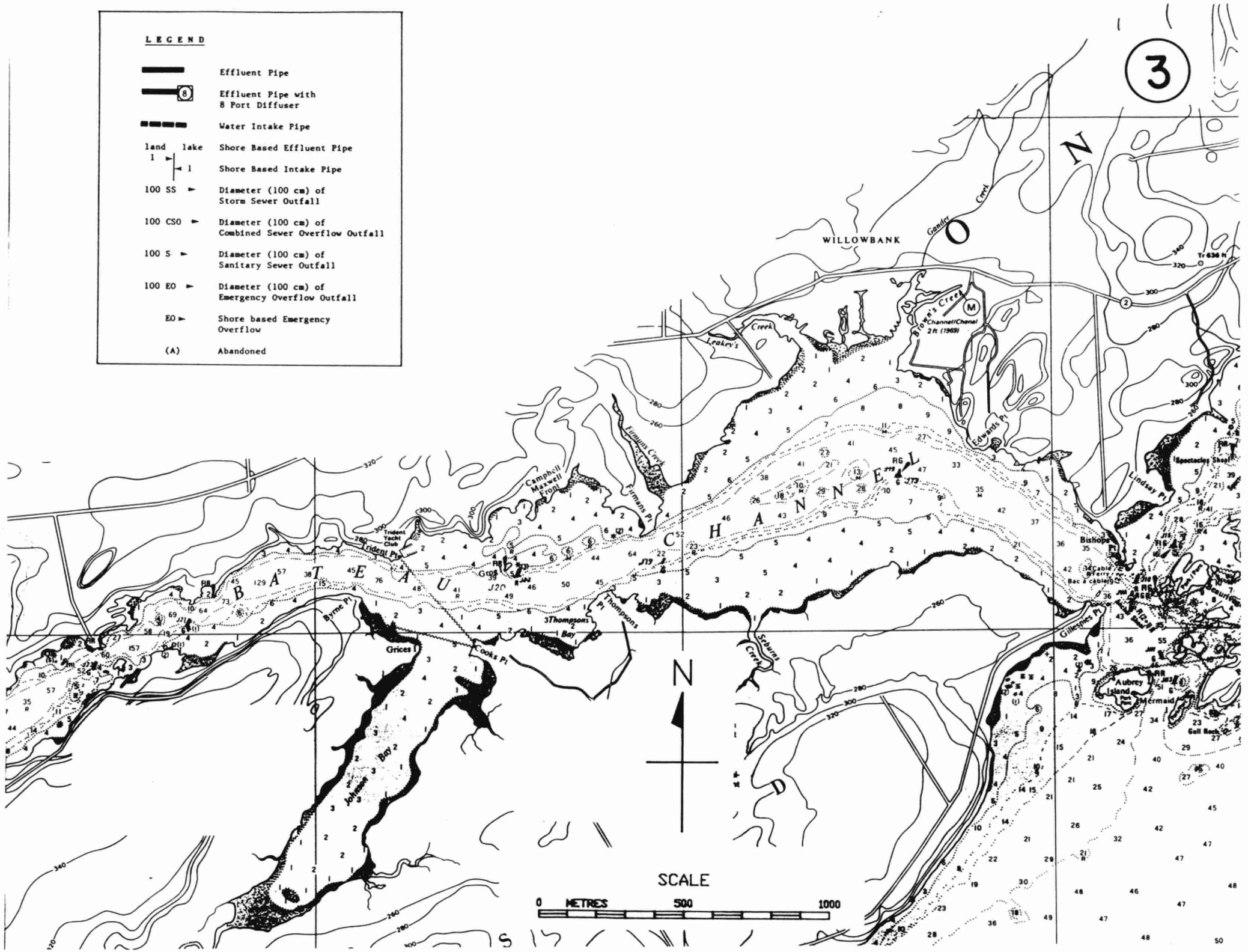
N

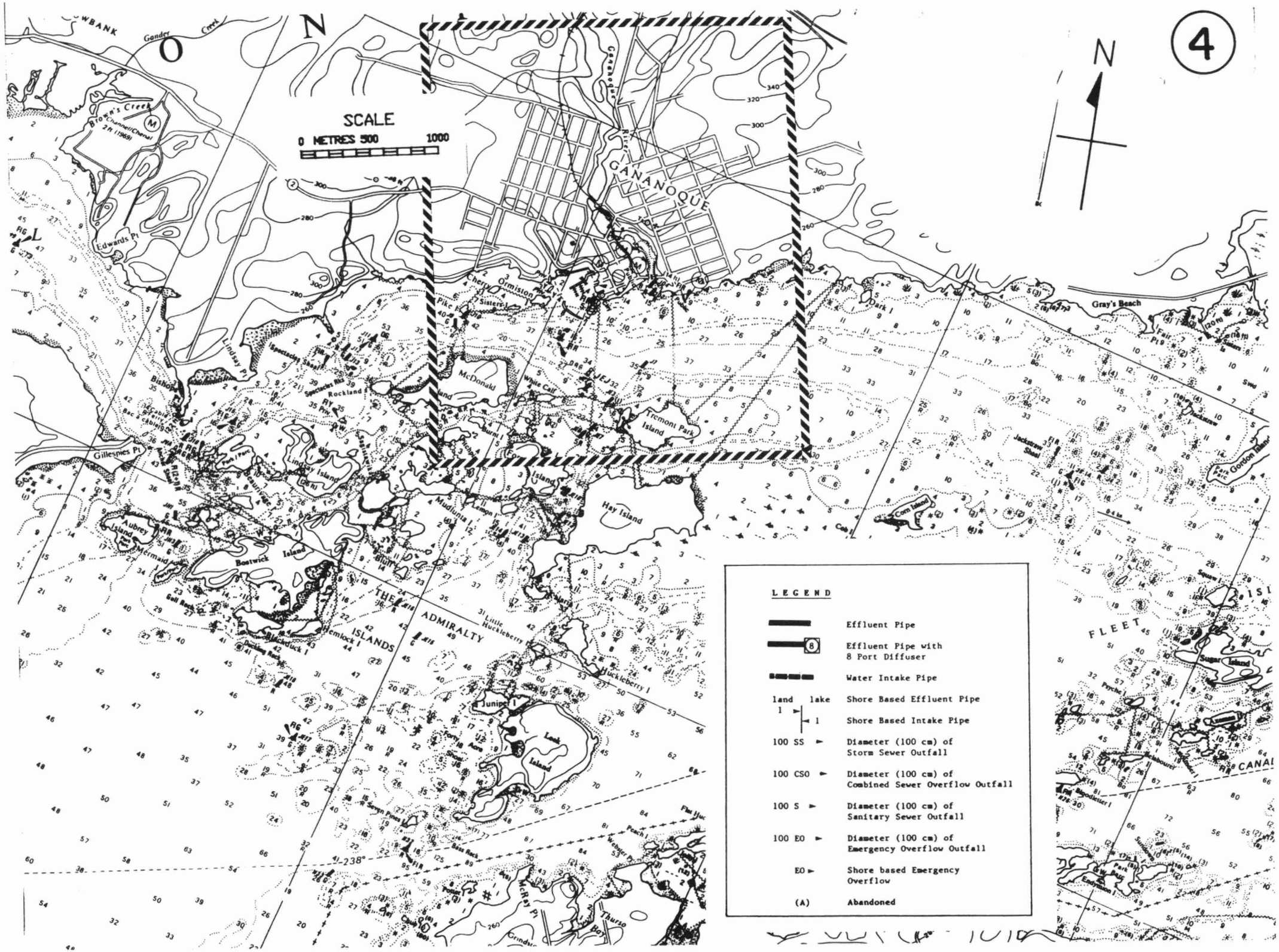
KINGSTON
HARBOUR
Point Frederick
Point Henry
Cartwright Point
Cedar Island
ST LAWRENCE ISLANDS NATIONAL PARK
Anglin Bay
NAVY BAY
DEADMAN BAY
VIMY BARRACKS
LAWRENCE WOODS
POPLAR GROVE
RAVENSWOOD
Abraham Head
Knapp Pt
Brophy Pt
PITTSBURGH TP
WOLFE ISLAND TP
RIVER
ISLANDS
BROWNS BAY
BARRETT BAY
Dawson Point
Wolfe Island
Cheese factory
Gravel Pit
Marina
Yacht Club
Dry Dock
Ferry (seasonal service)
City Limits
CATARAQUI RIVER
RIDEAU CANAL


LEGEND
Effluent Pipe
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake
Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS
Diameter (100 cm) of Storm Sewer Outfall
100 CSO
Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S
Diameter (100 cm) of Sanitary Sewer Outfall
100 EO
Diameter (100 cm) of Emergency Overflow Outfall
EO
Shore based Emergency Overflow
(A)
Abandoned
N
SCALE
0 5 10
KILOMETRES
2
Ganaraska
Willowbank
Campbell Mansion
Firmans
Edwards
Rockland
McDonald
Apohaqui
White Calf Islands
Tremont Park
Parc national des Îles du Saint-Laurent
St Lawrence National Park
Lindsay Point
THE ADMIRALTY ISLANDS
Bishops Pt
Redmorse Pt
Beaurivage
Billespies Point
Aubrey
Mermaid I
Hemlock
Blackduck
Gull Rock
Kaleria
Huckleberry
Little Huckleberry I
Juniper
Leek
St Lawrence Islands National Park
Bass Rock
Seven Pines I
Trident Pt
Yacht Club
Firmans Pt
Thomsons Pt
Byrne Pt
Grices
Cooks Pt
Thompsons Bay
Johnson Bay
Water
Grass Creek Township Park
Grass Creek Point
Pitts Ferry
Heritage
Joe Welsh Bay
Ferry
Cassidys Pt
Cassidys Bay
Split Head
Hickeys Point
HOWE ISLAND
ST JOHN
PITTSBURGH TOWNSHIP MUNICIPALITY
HOWE ISLAND TP MUN
BATEAU CHANNEL
THOUSAND ISLANDS
ST LAWRENCE
75.2±
Rush Bay
Quinns Bay
Cemetery
Black Ant
Hickory Island
Whiskey
Pepsone
Chub I
Arabella
Braddon Point
Quebec Head
Port Metcalf
Beauvais Pt
Blanket Island
Oak Point
Holliday
Holliday Point
Rattray Point
Dignam Point
HOWE ISLAND TP MUN.
WOLFE ISLAND TP MUN.
ST LAWRENCE RIVER
FRONT OF LEEDS AND LANSDOWNE TP
CLAYTON
GRAND
UD VD
01
02
03
04
05
06
07
08
99

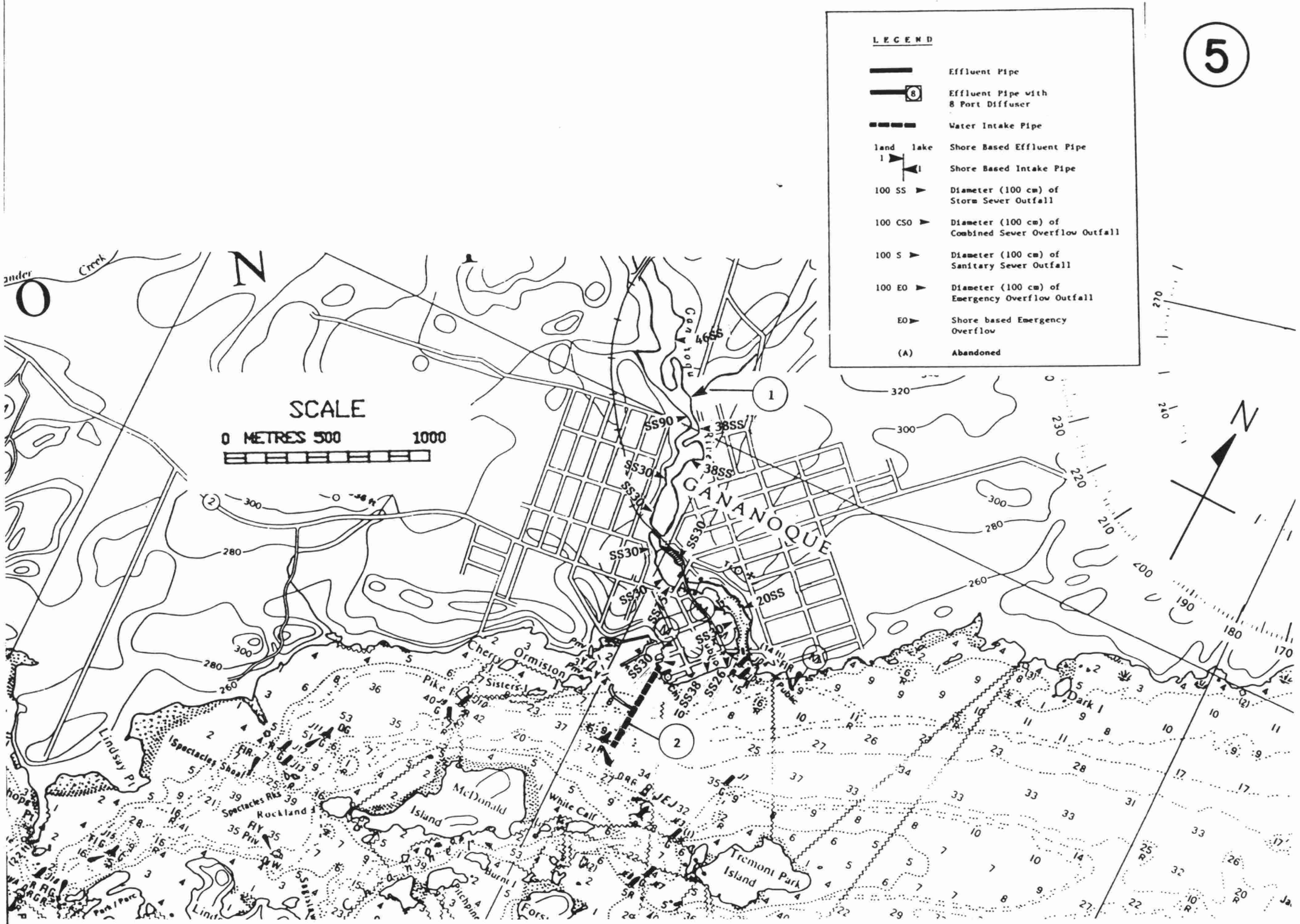
LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land lake — Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS — Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO — Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S — Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO — Diameter (100 cm) of Emergency Overflow Outfall
- EO — Shore based Emergency Overflow
- (A) — Abandoned




4
N
SCALE
0 METRES 500 1000
GANANOQUE
Gananoque River
Brown's Creek
Channel/Chenal
2 m (1969)
Edwards Pt
Lindsay Pt
Bishop
Gillespies Pt
Cherry Island
Ormiston Island
Pike Rock
Sisters
Spectacles Shoal
Spectacles Rks
Rockland
McDonald Island
White Calf
Tremont Park Island
Burnt Island
Lindsay Island
Mudlumps
Lemon I
Hay Island
Aubrey Island
Mermaid Rock
Bostwick Island
Gull Rock
Duck Rock
Blackduck I
Hemlock I
THE ADMIRALTY ISLANDS
Little Huckleberry
Huckleberry I
Juniper I
Long Island
Leek Island
Seven Pines
Bass Rock
McRae Pt
Thurso
Dark I
Gray's Beach
Fair Pt
Jackstraw Shoal
Corn Island
Fair Gordon Island
FLEET
Swan Island
Psyche I
Woodbourne
Woodchester I
Eastwood I
RIDEAU CANAL
LEGEND
Effluent Pipe
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS Diameter (100 cm) of Storm Sewer Outfall
100 CSO Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S Diameter (100 cm) of Sanitary Sewer Outfall
100 EO Diameter (100 cm) of Emergency Overflow Outfall
EO Shore based Emergency Overflow
(A) Abandoned

Name	Gananoque Lagoon	Gananoque WTP					
Intake/Outfall	Outfall	Intake					
OMIS/IMIS No.	110000285	220001021					
Structure No.	1	2					
Map Number	5	5					
Operating Authority	MUN PUC	MUN PUC					
Location	Gananoque	Gananoque					
Supplier/Receiver	St. Lawrence River	St. Lawrence River					
Point of Discharge	River Mouth						
Terminal Basin	St. Lawrence River	St. Lawrence River					
Activity	Municipal Sewage Treatment	Municipal Water Treatment					
Process Type	Primary Treatment	Chemical Treatment					
Supply/Discharge Type	Seasonal	Continuous					
Treatment Type	Biological	Chlorination					
Comments	Lagoons discharged in May of each year. No discharge during summer recreational period.	New WTP scheduled for construction in spring 1989.					
Design Flow (1000m3/day)	521,000 m3 Capacity	NA					
Mean Annual Flow (1000m3/day)	6.00	5.30					
Pipe length from shore (m)	NA	426.00					
Pipe Diameter (cm)	45.00	91.00					
Water Depth at end of pipe (m)	NA	9.40					
Water depth above end of pipe (m)	NA	7.50					
Diffuser	NO						
Number of ports							


LEGEND
Effluent Pipe
8 Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS Diameter (100 cm) of Storm Sewer Outfall
100 CSO Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S Diameter (100 cm) of Sanitary Sewer Outfall
100 EO Diameter (100 cm) of Emergency Overflow Outfall
EO Shore based Emergency Overflow
(A) Abandoned
SCALE
0 METRES 500 1000
N
GANANOQUE
Gananoque River
Cherry Island
Ormiston Island
Sisters Islands
Pike Island
Lindsay Pt
Spectacles Shoal
Spectacles Rks
Rockland I
McDonald Island
White Calf
Burnt I
Tremont Park Island
Dark I
Lindsay Pt
Hope Pt
4655
38SS
20SS
SS90
SS30
SS38
SS26
1
2

6

N

SCALE
0 METRES 500 1000

LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land lake — Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS ► — Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO ► — Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S ► — Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO ► — Diameter (100 cm) of Emergency Overflow Outfall
- EO► — Shore based Emergency Overflow
- (A) — Abandoned

MACDONALD - CARTIER FREEWAY
Gray's Creek
Halesteads Bay
THOUSAND ISLAND PARKWAY
Landons Bay
Cordwood Pt
Sterdivants Pt
Mainshore Pt
Horseblock Point
Collier Island
Hickey Island
Gordon Island
STAVE ISLANDS
Downie Island
Queen I
Spithury
NAVY ISLANDS
THE
Prince Regent Island
Princess Charlotte I
Abercrombie I
See SPEED NOTE NO 2
Voir NOTE SUR LA VITESSE NO 2
240°
MIDDLE CHANNEL
236°
CANADIAN
CANADA
UNITED STATES
WELLESLEY ISLAND
Grandview Park
WELLESLEY ISLAND STATE PARK
Westminster Point State Park
Fort Wallace

T

7

THOUSAND ISLAND PARKWAY

RAFT NARROWS

CANADIAN MIDDLE

ASH ISLAND

Wallace Island

CLUB ISLAND

HILL ISLAND

ISLES

Westminster Park

Manhattan Group

Mary Island

Fairyland Island

Yco Islands

Cleopatra

Sunken Rock

Thousand Islands Country Club

Imperial Isle

Belle Island

Harbor I

Maple I

Scamboat I

Redstone Isle

Beaufieu I

Rockport

Watch I

Elmy I

Broadway

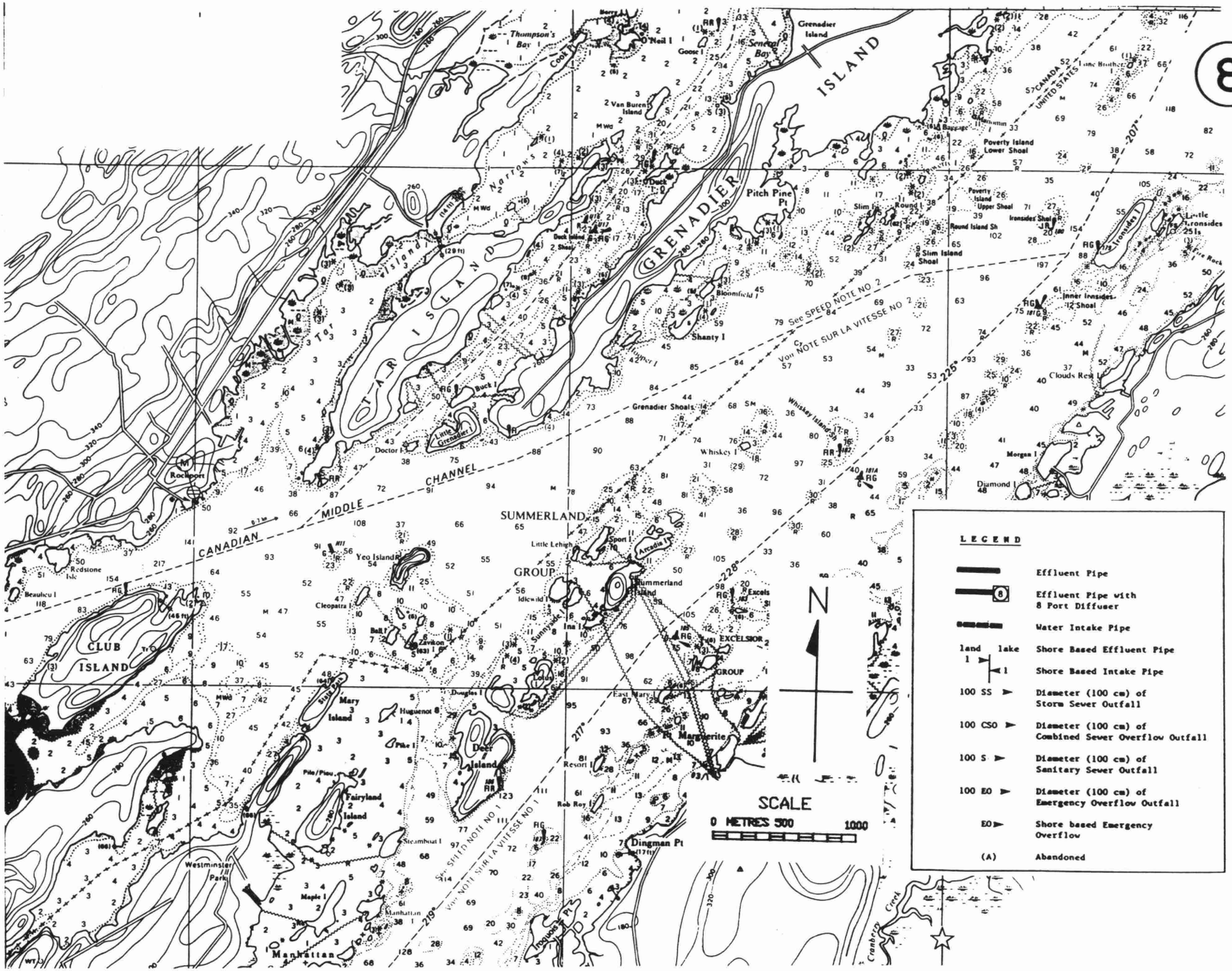
SCALE

0 METRES 500 1000

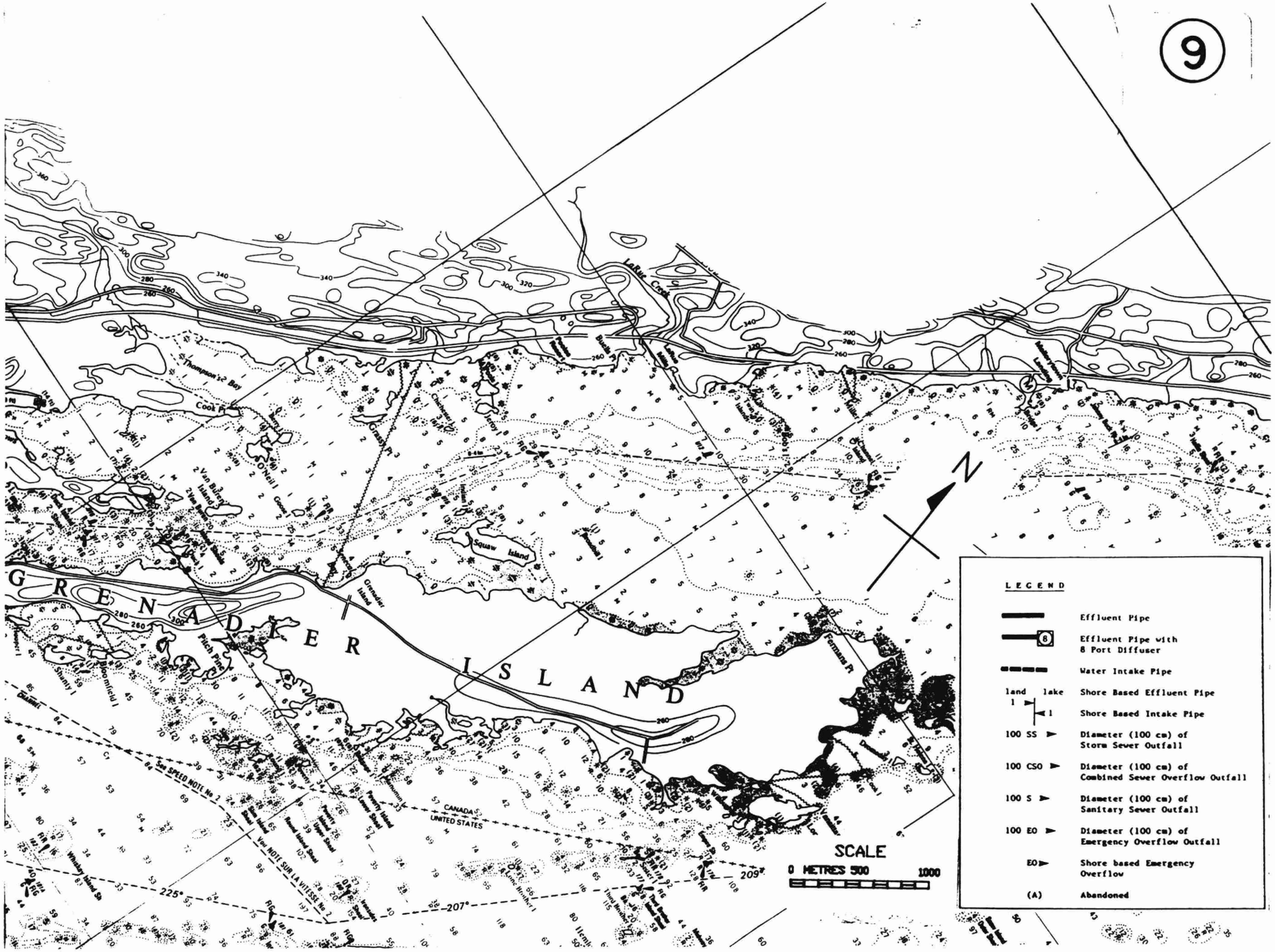
N

LEGEND

	Effluent Pipe
8	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
land lake	Shore Based Effluent Pipe
1 1	Shore Based Intake Pipe
100 SS ►	Diameter (100 cm) of Storm Sewer Outfall
100 CSO ►	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S ►	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO ►	Diameter (100 cm) of Emergency Overflow Outfall
EO ►	Shore based Emergency Overflow
(A)	Abandoned


ISLAND
GRENADIER
CANADA
UNITED STATES
Thompson's Bay
Cook
O'Neil I
Goose I
Senegal Bay
Grenadier Island
Van Buren Island
Narrows
Duck
Duck Island
Pitch Pine Pt
Poverty Island Lower Shoal
Poverty Island Upper Shoal
Slim I
Round I
Round Island Sh
Ironsides Shoal
Ironsides I
Little Ironsides
Slim Island Shoal
Bloomfield I
Shanty I
See SPEED NOTE NO 2
Voir NOTE SUR LA VITESSE NO 2
Inner Ironsides Shoal
Clouds Rest
Grenadier Shoals
Whiskey Island
Whiskey I
Morgan I
Diamond I
Buck I
Little Grenadier I
Doctor I
CHANNEL
MIDDLE
CANADIAN
SUMMERLAND
GROUP
Little Lehigh
Sport I
Arcadia I
Summerland Island
Yeo Island
Cleopatra I
Idlewild I
Ina I
Sumyside
Zavikon
Ball I
EXCELSIOR
GROUP
Lotus
Douglas I
East Mary
Marguerite
Resort I
Rob Roy I
Dingman Pt
Inquisitor Pt
CLUB
ISLAND
Mary Island
Huguenot
Pike I
Deer Island
Pike/Pixie
Fairyland Island
Steamboat I
Westminster Park
Maple I
Manhattan
Redstone Inlet
Beaulieu I
Rockport
Cranberry Creek
228°
207°
225°
217°
219°
N
SCALE
0 METRES 500 1000
LEGEND
Effluent Pipe
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake
Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS
Diameter (100 cm) of Storm Sewer Outfall
100 CSO
Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S
Diameter (100 cm) of Sanitary Sewer Outfall
100 EO
Diameter (100 cm) of Emergency Overflow Outfall
EO
Shore based Emergency Overflow
(A)
Abandoned

9


GRENADIER ISLAND
LaRue Creek
Thompson's Bay
Cook Pt
Grassy Pt
Van Buskirk Island
Squaw Island
Grenadier Island
Fitch Point
Fernans Pt
Shanty I
Bloomfield I
Pocketty Island
Upper Sheet
Lower Sheet
Round Island Shoal
Whiskey Island Sh
CANADA
UNITED STATES
225°
207°
209°
SCALE
0 METRES 500 1000
N
LEGEND
Effluent Pipe
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS Diameter (100 cm) of Storm Sewer Outfall
100 CSO Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S Diameter (100 cm) of Sanitary Sewer Outfall
100 EO Diameter (100 cm) of Emergency Overflow Outfall
EO Shore based Emergency Overflow
(A) Abandoned

10

O N A I O

LEGEND

- Effluent Pipe
- 8 — Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land lake — Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS — Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO — Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S — Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO — Diameter (100 cm) of Emergency Overflow Outfall
- EO — Shore based Emergency Overflow
- (A) — Abandoned

SCALE
0 METRES 500 1000

SMALL CRAFT ROUTE
ROUTE POUR PETITES EMBARCATIONS

See SPEED NOTE No 1
Voir NOTE SUR LA VITESSE No 1

ISLANDS
CROSSOVER
ISLAND
Patterson Pt
Browns Bay
Elliott Pt
Whitney Pt
Butternut Bay
Chimney
Cockwood I
Base Rock
Com I
Little Com I
Gull I
Pee Tree I
Middle I
Indian Chief Islands
Princess I
Rabbit I
Savage I
Parry Sound
Crossover Is
Pool Island Shoal
Pee Tree Island Shoal
Gull Island Shoal
Little Com Island Shoal
Com Island Shoal
Cockwood Island Shoal
Base Rock Shoal
Ormsall Islet
Ompah I
Cockwood I
Rabbit I
Crossover Is
Pee Tree I
Middle I
Indian Chief Islands
Princess I
Savage I
Elliott Pt
Whitney Pt
Patterson Pt
Chimney
Com I
Little Com I
Gull I
Ompah I
Ormsall Islet
Cockwood I
Base Rock
Pee Tree I
Middle I
Indian Chief Islands
Princess I
Savage I
Rabbit I
Crossover Is
Parry Sound

11

LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land / lake — Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS — Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO — Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S — Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO — Diameter (100 cm) of Emergency Overflow Outfall
- EO — Shore based Emergency Overflow
- (A) — Abandoned

SCALE
0 METRES 500 1000

N

Buttermut Bay
Cole Creek
Hudson's Pt
Fulford Pt
WOODRIDGE
Anchorage
Lily Bay
McDonald Bay
McDonald Pt
FERNBANK
Hillcrest Pt
Grants Creek
Heathers Pt
Royal
BROCKVILLE
GROUP
Point Comfort
Birch Pt
Oak Point Road
CANADA
UNITED STATES
222°
217°
193½°
See SPEED NOTE No 1
Voir NOTE SUR LA VITESSE No 1
See Inset / Voir cartouche 14472

Name	Brockville WPCP						
Intake/Outfall	Outfall						
OMIS/IMIS No.	120000122						
Structure No.	1						
Map Number	12						
Operating Authority	MUN						
Location	Brockville						
Supplier/Receiver	St. Lawrence River						
Point of Discharge	Shore						
Terminal Basin	St. Lawrence River						
Activity	Municipal Sewage Treatment						
Process Type	Primary Treatment						
Supply/Discharge Type	Continuous						
Treatment Type	Mechanical Settling Anaerobic Digestion Grit Removal P Removal-Continuous						
Comments							
Design Flow (1000m3/day)	22.73						
Mean Annual Flow (1000m3/day)	17.50						
Pipe length from shore (m)	17.10						
Pipe Diameter (cm)	91.40						
Water Depth at end of pipe (m)	9.50						
Water depth above end of pipe (m)	8.50						
Diffuser	YES						
Number of ports	9						

12

LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land lake — Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS ► — Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO ► — Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S ► — Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO ► — Diameter (100 cm) of Emergency Overflow Outfall
- EO► — Shore based Emergency Overflow
- (A) — Abandoned

N

See Map 13

BROCKVILLE

Butlers Creek

Ontario Hospital

Alpha Cables

St. Lawrence Park

Blockhouse I

See Inset/ Voir Cartouche

Skelton I

Refugee I

Old Man I

Hollows Pt

Chapman Pt

MORRISTOWN

Morristown Pt

TERRACE PARK

Point Comfort

Jacques Cartier State Park

Delack Pt

Leach Cr

Murray I

Bogardus I

SISTERS OF THE 43 ISLANDS

CANADA

U.S.A.

SCALE

0 METRES 500 1000

Name	Phillips Cables	Phillips Cables	Phillips Cables	Brockville WTP	Brockville WTP	Brockville WPCP	
Intake/Outfall	Outfall	Intake	Outfall	Outfall	Intake	Outfall	
OMIS/IMIS No.	NA	NA	NA	220001263	220001263	120000122	
Structure No.	1	2	3	4	5	6	
Map Number	13	13	13	13	13	13	
Operating Authority	IND	IND	IND	MUN (PUC)	MUN (PUC)	MUN	
Location	Brockville	Brockville	Brockville	Brockville	Brockville	Brockville	
Supplier/Receiver	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	
Point of Discharge	Shore		Shore	Shore		Offshore	
Terminal Basin	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	
Activity	Electrical Wire and Cable Manufacturing	Electrical Wire and Cable Manufacturing	Electrical Wire and Cable Manufacturing	Municipal Water Treatment	Municipal Water Treatment	Municipal Sewage Treatment	
Process Type	NA	NA	NA	Backwash Pipe	Physical and Chemical Treatment	Emergency Overflow ByPass	
Supply/Discharge Type	Continuous	Continuous	Continuous	Batch	Continuous	Batch	
Treatment Type	None	None	None	Aluminum Sulphate added to Settling Basin Dual Media Filters	Flocculation, Rapid Dual Media Filters Chlorination and Fluoridation	Holding Tank	
Comments	Effluent is composed of roof and yard drains as well as cooling water	Private Industrial System used for Non-Potable Water	Effluent is composed of roof and yard drains as well as cooling water	Sludge to WPCP Supernatent to river		Main Sewage Pumping Station Temporary Emergency Outfall	
Design Flow (1000m3/day)	2.00	6.60	4.00	NA	90.90	NA	
Mean Annual Flow (1000m3/day)	1.30	3.20	2.00	0.20	18.10	NA	
Pipe length from shore (m)	0.00	129.00	0.00	40.00	267.00	213.00	
Pipe Diameter (cm)	38.00	61.00	51.00	30.50	91.40	76.00	
Water Depth at end of pipe (m)	NA	6.50	NA	1.50	12.80	15.20	
Water depth above end of pipe (m)	NA	5.00	NA	1.50	10.80	14.30	
Diffuser	NO		NO	NO		NO	
Number of ports							

LEGEND

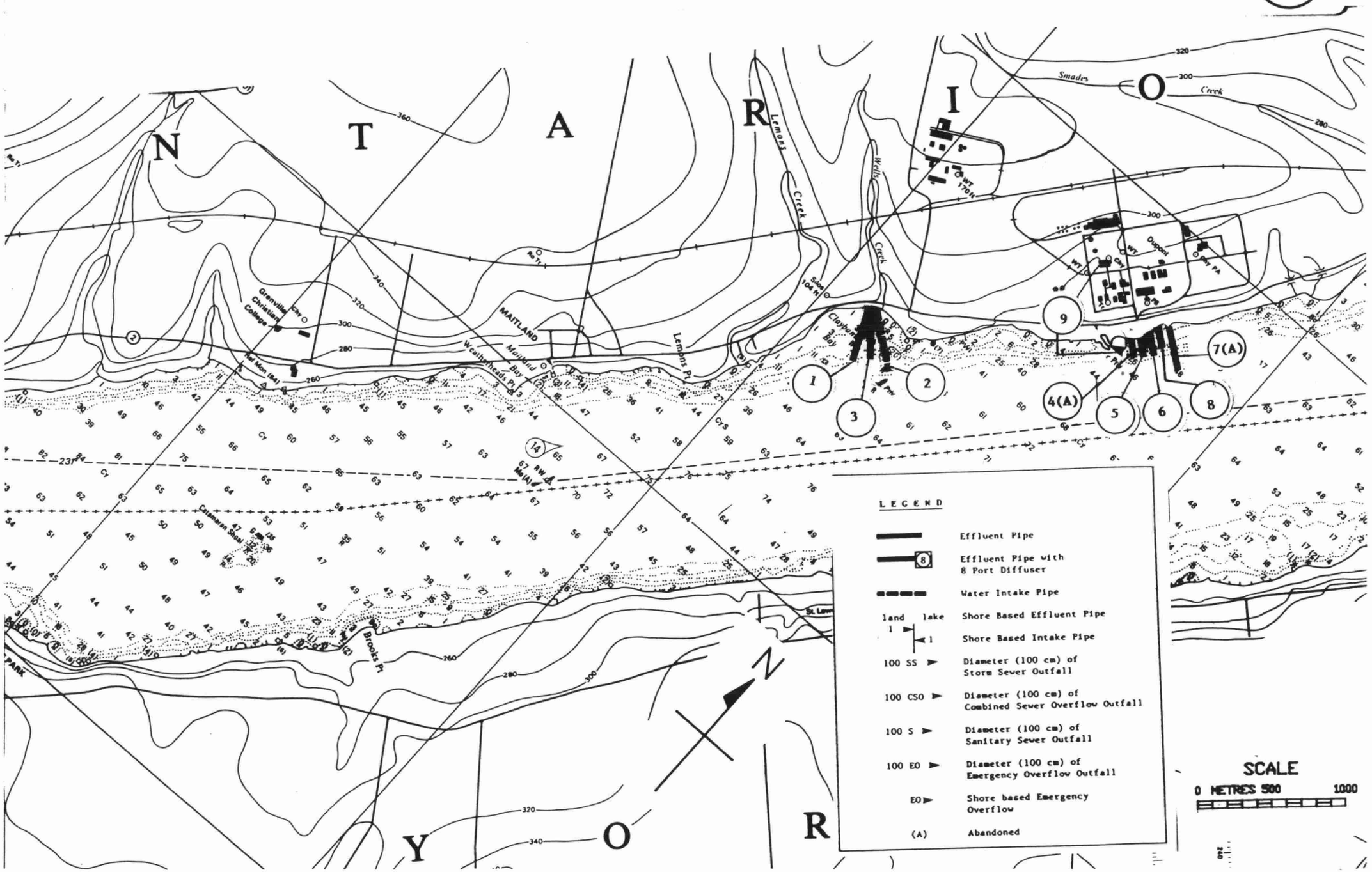
- Effluent Pipe
- 8 — Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land lake — Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS — Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO — Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S — Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO — Diameter (100 cm) of Emergency Overflow Outfall
- EO — Shore based Emergency Overflow
- (A) — Abandoned

SCALE

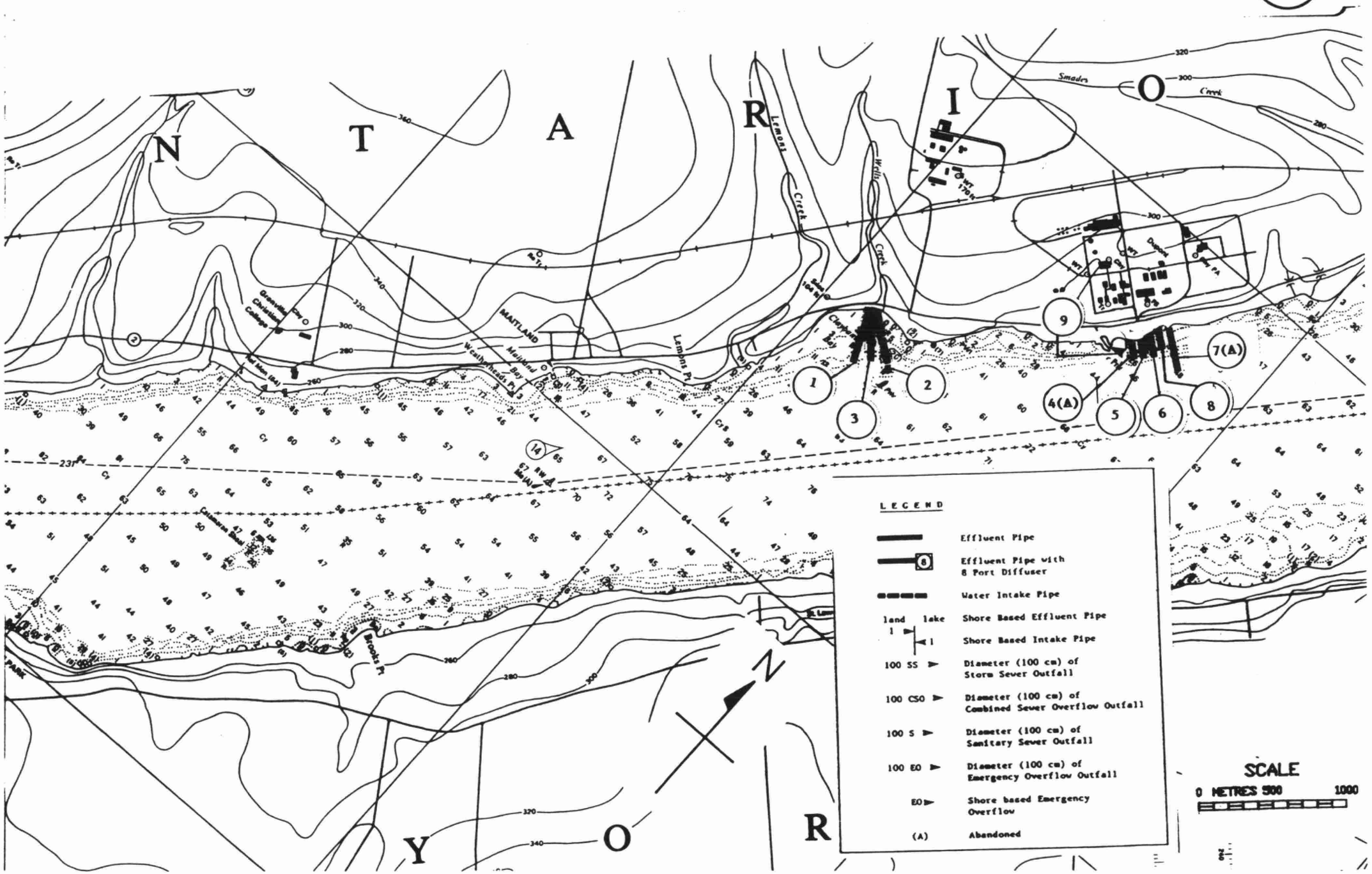
0 METRES 500 1000

Name	Nitrochem Inc.	Nitrochem Inc.	Nitrochem Inc.	Dupont Canada	Dupont Canada	Dupont Canada	Dupont Canada
Intake/Outfall	Outfall	Intake	Outfall	Outfall	Outfall	Outfall	Outfall
UMIS/IMIS No.	0001710003	0001710003	0001710003	0000080002	0000080002	0000080002	0000080002
Structure No.	1	2	3	4	5	6	7
Map Number	14	14	14	14	14	14	14
Operating Authority	IND	IND	IND	IND	IND	IND	IND
Location	Maitland	Maitland	Maitland	Maitland	Maitland	Maitland	Maitland
Supplier/Receiver	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River
Point of Discharge	Offshore		Offshore	Offshore	Offshore	Offshore	Offshore
Terminal Basin	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River
Activity	Fertilizer Production	Fertilizer Production	Fertilizer Production	Sythetics and Tetra-ethyl lead Manufacturing	Sythetics and Tetra-ethyl lead Manufacturing	Sythetics and Tetra-ethyl lead Manufacturing	Sythetics and Tetra-ethyl lead Manufacturing
Process Type	Nitric Acid and various grades of Ammonia Fertilizers	Nitric Acid and various grades of Ammonia Fertilizers	Nitric Acid and various grades of Ammonia Fertilizers	T-E Lead from lead-sodium and ethyl-chloride. Mfg of nylon,plastics,freon	T-E Lead from lead-sodium and ethyl-chloride. Mfg of nylon,plastics,freon	T-E Lead from lead-sodium and ethyl-chloride. Mfg of nylon,plastics,freon	Mfg. of nylon,plastics, and freon.
Supply/Discharge Type	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous
Treatment Type	Settling and Equalization Ponds and Evaporation Aqua-Chem unit reclaims Nitrogenous compounds from wastewater.	Filtration, Chlorination and Demineralization	Filtration, Chlorination and Demineralization	Activated Sludge Extended Aeration,Nitrification/De Nitrification	Activated Sludge Extended Aeration,Nitrification/De Nitrification	Activated Sludge Extended Aeration,Nitrification/De Nitrification	No Treatment
Comments	Aqua Chem unit to start up in 1987.Also discharge from Puritan-Bennett			Discharge composed of WWTP effluent and cooling water. Outfall Abandoned	WWTP effluent and cooling water. T-E lead discharge stopped mid 1986. Plant decommissioned/dismantled	WWTP effluent and cooling water. T-E lead discharge stopped mid 1986. Plant decommissioned/dismantled	Outfall abandoned. Old process water sewer.
Design Flow (1000m3/day)	3.60	NA	3.60	9.10	9.10	9.10	NA
Mean Annual Flow (1000m3/day)	2.50	121.00	2.50	189.00	189.00	189.00	1.20
Pipe length from shore (m)	381.00	418.00	335.00	152.00	128.00	116.00	305.00
Pipe Diameter (cm)	45.60	45.70	38.00	152.00	122.00	122.00	20.00
Water Depth at end of pipe (m)	7.30	7.90	10.70	6.10	6.10	6.10	6.10
Water depth above end of pipe (m)	6.90	7.90	NA	5.50	5.50	5.50	6.00
Diffuser	NO		NO	NO	NO	NO	NO
Number of ports							

14


N T A R I O
Y O R
Smades Creek
Lemons Creek
Wells Creek
Dupont
Grenville Christian College
MAITLAND
Maitland Bay
Wealthy Heads Pt
Lemons Pt
Cloyburn Bay
Brooks Pt
Catamaran Shoal
St Lawrence Park
1
2
3
4(A)
5
6
7(A)
8
9
14
LEGEND
Effluent Pipe
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS Diameter (100 cm) of Storm Sewer Outfall
100 CSO Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S Diameter (100 cm) of Sanitary Sewer Outfall
100 EO Diameter (100 cm) of Emergency Overflow Outfall
EO Shore based Emergency Overflow
(A) Abandoned
SCALE
0 METRES 500 1000

Name	Dupont Canada	Dupont Canada					
Intake/Outfall	Outfall	Intake					
DMIS/IMIS No.	0000080002	0000080002					
Structure No.	8	9					
Map Number	14	14					
Operating Authority	IND	IND					
Location	Maitland	Maitland					
Supplier/Receiver	St. Lawrence River	St. Lawrence River					
Point of Discharge	Offshore						
Terminal Basin	St. Lawrence River	St. Lawrence River					
Activity	Sythetics and Tetra-ethyl lead Manufacturing	Sythetics and Tetra-ethyl lead Manufacturing					
Process Type	T-E Lead from lead-sodium and ethyl-chloride. Mfg of nylon,plastics,freon	T-E Lead from lead-sodium and ethyl-chloride. Mfg of nylon,plastics,freon					
Supply/Discharge Type	Continuous	Continuous					
Treatment Type	Activated Sludge						
Comments	Treatment of Human Sewage T-E Lead plant is now decommissioned/dismantled	Twin Intake ports. T-E Lead plant is now decommissioned/dismantled					
Design Flow (1000m3/day)	NA	354.00					
Mean Annual Flow (1000m3/day)	1.20	185.00					
Pipe length from shore (m)	134.00	0.00					
Pipe Diameter (cm)	25.00	152.00					
Water Depth at end of pipe (m)	6.10	NA					
Water depth above end of pipe (m)	6.00	NA					
Diffuser	NO						
Number of ports							


N
T
A
R
I
O
Y
O
R
Lemoss Creek
Smeaton Creek
MAITLAND
Maitland Bay
Lemons Pt
Brooks Pt
Grenville Christian College
Mt Main (84)
Clarkes Bay
1
2
3
4(A)
5
6
7(A)
8
9
14
LEGEND
Effluent Pipe
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake
Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS ► Diameter (100 cm) of Storm Sewer Outfall
100 CSO ► Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S ► Diameter (100 cm) of Sanitary Sewer Outfall
100 EO ► Diameter (100 cm) of Emergency Overflow Outfall
EO► Shore based Emergency Overflow
(A) Abandoned
SCALE
0 METRES 500 1000

15

See Map 16

PRESCOTT

OGDENSBURG

PRESCOTT ANCHORAGE AREA
ZONE DE MOUILLAGE PRESCOTT

See Inset Prescott on Chart 1416
Voir cartouche de Prescott sur Carte 1416

NOTE 47

See SPEED NOTE Voir NOTE SUR LA VITESSE

223°

CANADA
USA / É-UA

RIVERVIEW HEIGHTS

Blue Church

Dupont

Port PA

Aero International

Agway Comp

Oswegatchie R.

Nevi

K

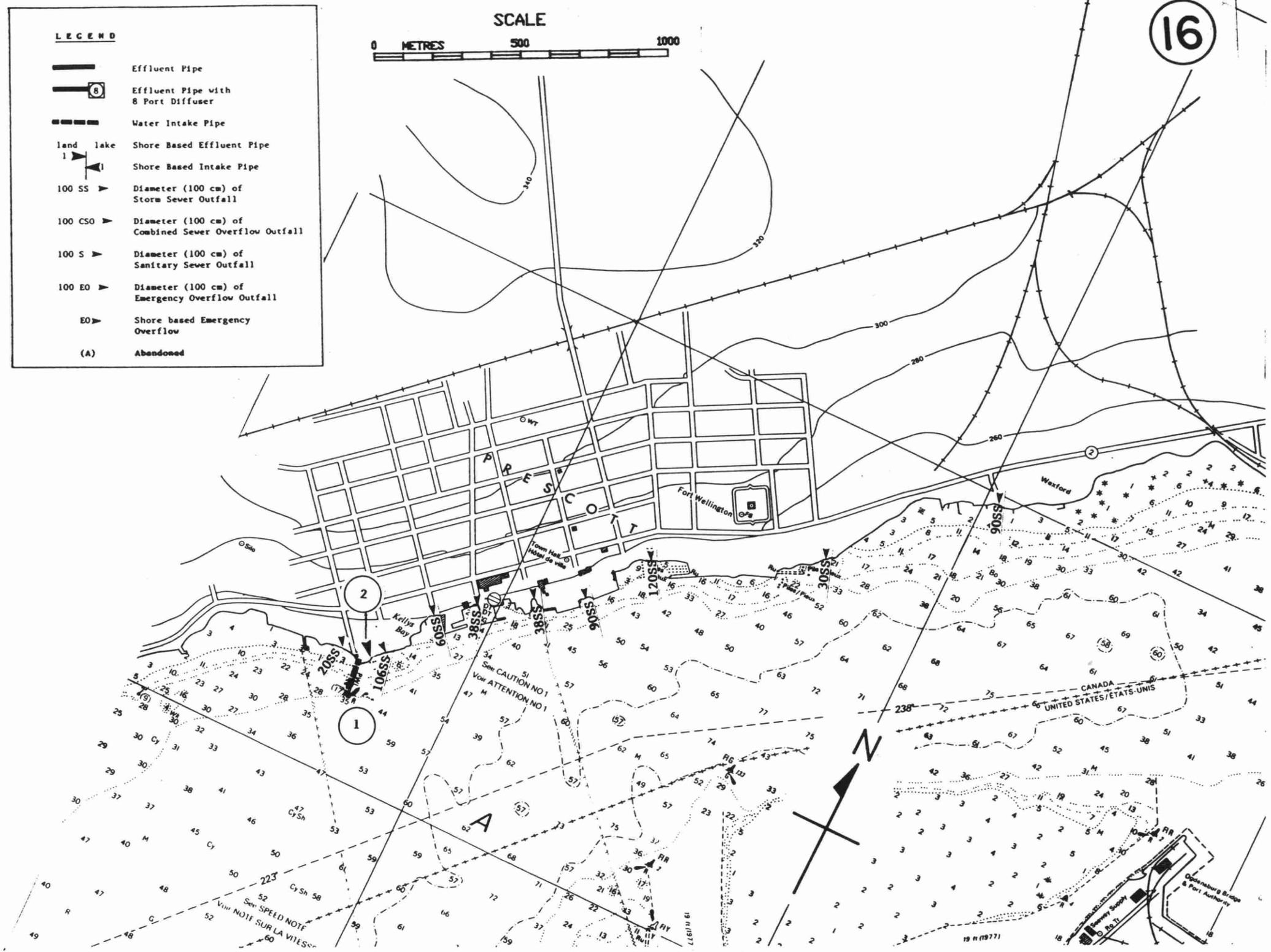
N

SCALE
0 METRES 500 1000

LEGEND

	Effluent Pipe
8	Effluent Pipe with 8 Port Diffuser
	Water Intake Pipe
land 1 lake 1	Shore Based Effluent Pipe
1	Shore Based Intake Pipe
100 SS	Diameter (100 cm) of Storm Sewer Outfall
100 CSO	Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S	Diameter (100 cm) of Sanitary Sewer Outfall
100 EO	Diameter (100 cm) of Emergency Overflow Outfall
EO	Shore based Emergency Overflow
(A)	Abandoned

Name	Prescott WTP	Prescott WTP					
Intake/Outfall	Intake	Outfall					
OMIS/IMIS No.	220001245	220001245					
Structure No.	1	2					
Map Number	16	16					
Operating Authority	MUN PDC	MUN PDC					
Location	Prescott	Prescott					
Supplier/Receiver	St. Lawrence River	St. Lawrence River					
Point of Discharge		Offshore					
Terminal Basin	St. Lawrence River	St. Lawrence River					
Activity	Municipal Water Treatment	Municipal Water Treatment					
Process Type	Physical and Chemical Treatment	Backwash filter effluent Outfall					
Supply/Discharge Type	Continuous	Batch					
Treatment Type	Filtration Disinfection	No Treatment of Filter Backwash Effluent					
Comments		Discharge Pipe was Old Intake line now filter backwash outfall					
Design Flow (1000m3/day)	8.20	NA					
Mean Annual Flow (1000m3/day)	5.40	NA					
Pipe length from shore (m)	122.00	NA					
Pipe Diameter (cm)	61.00	30.00					
Water Depth at end of pipe (m)	6.40	NA					
Water depth above end of pipe (m)	NA	NA					
Diffuser		NO					
Number of ports							


LEGEND
Effluent Pipe
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake
Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS
Diameter (100 cm) of Storm Sewer Outfall
100 CSO
Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S
Diameter (100 cm) of Sanitary Sewer Outfall
100 EO
Diameter (100 cm) of Emergency Overflow Outfall
EO
Shore based Emergency Overflow
(A)
Abandoned
SCALE
0 METRES 500 1000
16
PRESCOTT
Fort Wellington
Town Hall
Hôtel de ville
Kellys Bay
Wexford
CANADA
UNITED STATES/ÉTATS-UNIS
See CAUTION NO 1
Voir ATTENTION NO 1
See SPEED NOTE
Voir NOTE SUR LA VITESSE
Ogdensburg Bridge & Port Authority
Sewage Supply
20SS
106SS
60SS
38SS
90SS
120SS
30SS
90SS
340
320
300
280
260
238
223

Name	Prescott WPCP						
Intake/Outfall	Outfall						
OMIS/IMIS No.	110001122						
Structure No.	1						
Map Number	17						
Operating Authority	MOE						
Location	Prescott						
Supplier/Receiver	St. Lawrence River						
Point of Discharge	Offshore						
Terminal Basin	St. Lawrence River						
Activity	Municipal Sewage Treatment						
Process Type	Primary Treatment						
Supply/Discharge Type	NA						
Treatment Type	Anaerobic Digestion P Removal-Continuous						
Comments							
Design Flow (1000m3/day)	5.68						
Mean Annual Flow (1000m3/day)	5.16						
Pipe length from shore (m)	168.00						
Pipe Diameter (cm)	107.00						
Water Depth at end of pipe (m)	4.57						
Water depth above end of pipe (m)	3.50						
Diffuser	NO						
Number of ports							

O N T

17

See Map 16

JOHNSTOWN

OGDENSBURG

See SPEED NOTE NOTE SUR LA VITESSE

LEGEND

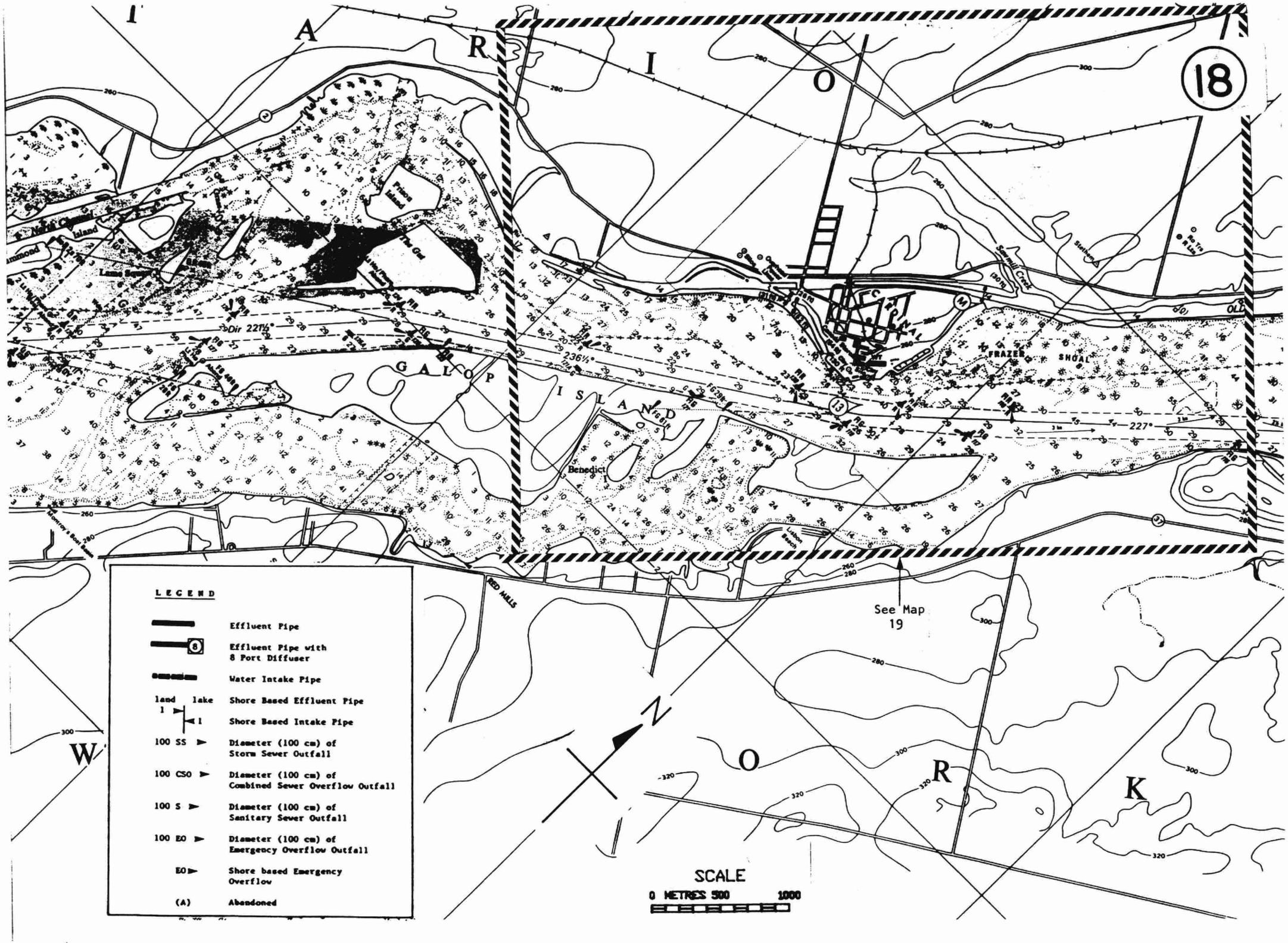
- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land lake — Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS — Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO — Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S — Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO — Diameter (100 cm) of Emergency Overflow Outfall
- EO — Shore based Emergency Overflow
- (A) — Abandoned

N

E

SCALE

0 METRES 500 1000


18
A R I O
G A L O P I S L A N D
Prison Island
The Gut
North Channel
Lime Kiln
Dir 227½°
236½°
227°
Benedict
Lighted Buoy
Swimmill Creek
FRAZER SHOAL
CANAL
Lisbon Beach
RED MILLS
See Map 19
W O R K
N
SCALE
0 METRES 500 1000
LEGEND
Effluent Pipe
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS Diameter (100 cm) of Storm Sewer Outfall
100 CSO Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S Diameter (100 cm) of Sanitary Sewer Outfall
100 EO Diameter (100 cm) of Emergency Overflow Outfall
EO Shore based Emergency Overflow
(A) Abandoned

Name	Casco Company	Casco Company	Casco Company	Casco Company	Casco Company	Casco Company	Cardinal WTP
Intake/Outfall	Intake	Outfall #3	Outfall	Outfall	Outfall #2	Outfall #1	Intake
UMIS/IMIS No.	0001720002	0001720002	0001720002	0001720002	0001720002	0001720002	NA
Structure No.	1	2	3	4	5	5	6
Map Number	19	19	19	19	19	19	19
Operating Authority	IND	IND	IND	IND	IND	IND	MUN
Location	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal
Supplier/Receiver	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River
Point of Discharge		Shore	Shore	Shore	Shore	Shore	
Terminal Basin	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River
Activity	Processing of food and Related Products	Processing of food and Related Products	Processing of food and Related Products	Processing of food and Related Products	Processing of food and Related Products	Processing of food and Related Products	Municipal Water Treatment
Process Type	Wet corn milling and oil refining processes	Wet corn milling and oil refining processes	Wet corn milling and oil refining processes	Wet corn milling and oil refining processes	Wet corn milling and oil refining processes	Wet corn milling and oil refining processes	NA
Supply/Discharge Type	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous	NA
Treatment Type	Screening & Chlorination	None	None	None	None	Aerated Lagoon	NA
Comments	Two intake pipes each with a diameter of 60 cm	Cooling water outfall removed by mid 1987 and flow redirected to the central outfall	Central outfall discharges cooling water and surface runoff	West outfall discharges cooling water and surface runoff	Common discharge with Outfall #1. Casco also provides treatment of Cardinal's sewage.	Common discharge with Outfall #2. Casco also provides treatment of Cardinal's sewage.	
Design Flow (1000m3/day)	60.00	10.00	70.00	15.00	47.00	3.00	NA
Mean Annual Flow (1000m3/day)	38.00	1.00	29.50	9.00	42.00	3.00	NA
Pipe length from shore (m)	50.00	0.00	0.00	3.00	85.00	85.00	175.00
Pipe Diameter (cm)	60.00	30.00	60.00	40.00	76.00	76.00	30.00
Water Depth at end of pipe (m)	10.00	9.00	9.00	2.00	7.00	7.00	NA
Water depth above end of pipe (m)	9.00	0.00	0.00	1.50	6.00	6.00	NA
Diffuser		NO	NO	NO	NO	NO	
Number of ports							

19

LEGEND

- Effluent Pipe
- 8 — Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land lake — Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS — Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO — Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S — Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO — Diameter (100 cm) of Emergency Overflow Outfall
- EO — Shore based Emergency Overflow
- (A) — Abandoned

N

SCALE
0 METRES 500 1000

I

O

280

300

260

Sawmill Creek

Stelhem

OLD

CANAL

FRAZER SHOAL

ISLAND

Benedict I

Lisbon Beach

236½°

227°

10SS 41SS 25SS 61SS 16SS SS25 SS30

(30 ft) (31 ft) (26 ft) (12 ft) (14 ft)

1 2 3 4 5 6 M 37

Name	Iroquois WTP	Iroquois STP					
Intake/Outfall	Intake	Outfall					
UMIS/IMIS No.	220001254	120000159					
Structure No.	1	2					
Map Number	20	20					
Operating Authority	MUN	MUN					
Location	Iroquois	Iroquois					
Supplier/Receiver	St. Lawrence River	St. Lawrence River					
Point of Discharge		Offshore					
Terminal Basin	St. Lawrence River	St. Lawrence River					
Activity	Municipal Water Treatment	Municipal Sewage Treatment					
Process Type	Physical and Chemical	Primary Treatment					
Supply/Discharge Type	On Demand	Continuous					
Treatment Type	Screening and Chlorination	Screening, settling, alum P Removal-Continuous					
Comments							
Design Flow (1000m3/day)	4.54	4.54					
Mean Annual Flow (1000m3/day)	2.72	2.72					
Pipe length from shore (m)	91.44	150.00					
Pipe Diameter (cm)	61.00	91.44					
Water Depth at end of pipe (m)	11.58	6.10					
Water depth above end of pipe (m)	11.58	4.57					
Diffuser		YES					
Number of ports		3					

20

OLD GALOP CANAL

Toussaint I.

Toussaint I.

Sparrowhawk Pt.

Iroquois Island

IROQUOIS

Ditch

Ditch

Ditch

CANADA

UNITED STATES

241½°

227°

27 ft

27 ft

Rockway Pt.

WHITEHOUSE BAY

(See SPEED NOTE)

(Voir NOTE SUR LA VITESSE)

(See CURRENT NOTE)

(Voir NOTE SUR LES COURANTS)

EMERGENCY ANCHORAGE AREA

ZONE DE MOUILLAGE DE SECOURS

K

SCALE

0 METRES 500 1000

N

N

LEGEND

- Effluent Pipe
- 8 — Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land 1 | lake 1 — Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS ► Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO ► Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S ► Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO ► Diameter (100 cm) of Emergency Overflow Outfall
- EO ► Shore based Emergency Overflow
- (A) Abandoned

21

MORRISBURG

Flagg Creek

Flagg Bay

Rapide Plat Pt.

Robertson Pt.

Pinetree Pt.

Parlow Creek

Capital Concrete Products

Sun Oil

Mariatown

OGDEN ISLAND

LITTLE RIVER

Irishman Point

Canada Island

Clark Island

Murphy Shoal

Clark Shoal

Broad Creek

057°

237°

255°

(See SPEED NOTE)

(Voir NOTE SUR LA VITESSE)

SCALE

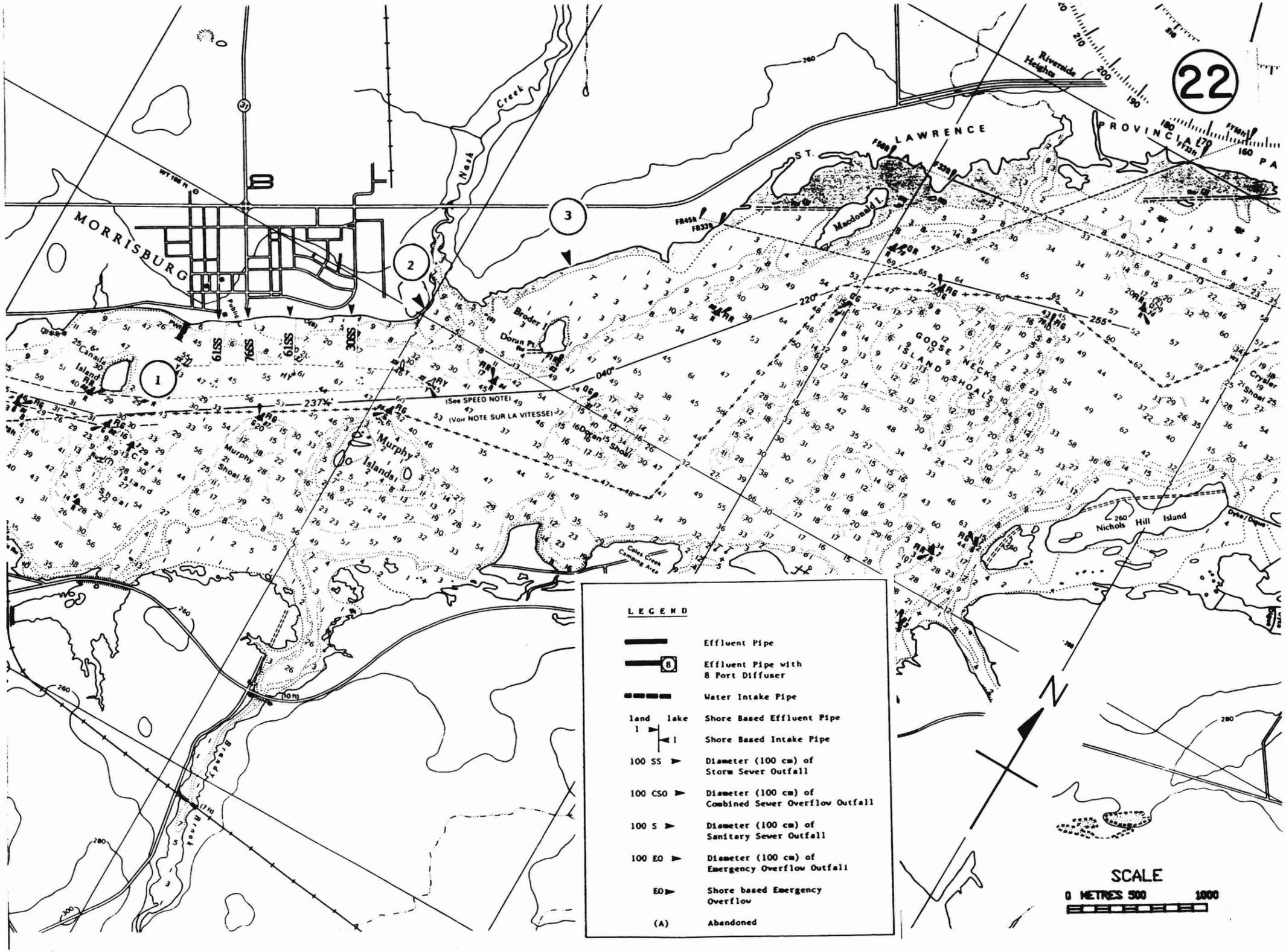
0 METRES 500 1000

N

LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser (8)
- Water Intake Pipe
- land / lake — Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS ► Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO ► Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S ► Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO ► Diameter (100 cm) of Emergency Overflow Outfall
- EO ► Shore based Emergency Overflow
- (A) Abandoned

Name	Morrisburg WTP	Morrisburg WPCP	Rohm & Hass Canada Inc.				
Intake/Outfall	Intake	Outfall	Outfall				
UMIS/IMIS No.	220001012	120000168	NA				
Structure No.	1	2	3				
Map Number	22	22	22				
Operating Authority	MUN	MUN	IND				
Location	Morrisburg	Morrisburg	Morrisburg				
Supplier/Receiver	St. Lawrence River	St. Lawrence River	St. Lawrence River				
Point of Discharge		Shore	Shore				
Terminal Basin	St. Lawrence River	St. Lawrence River	St. Lawrence River				
Activity	Municipal Water Treatment	Municipal Sewage Treatment	Production of chemicals and related products				
Process Type	Chemical Treatment	Primary Treatment	Mfg of periglass from raw materials, as well as the Mfg of an oil additive				
Supply/Discharge Type	Continuous	Continuous	Continuous				
Treatment Type	Chlorination only	Conventional Lagoon	Package sewage treatment plant				
Comments			Design flow is for treated sanitary only, excess is storm and cooling water				
Design Flow (1000m3/day)	NA	NA	0.01				
Mean Annual Flow (1000m3/day)	2.19	3.13	0.50				
Pipe length from shore (m)	76.20	6.10	0.00				
Pipe Diameter (cm)	61.00	61.00	38.00				
Water Depth at end of pipe (m)	18.00	1.80	NA				
Water depth above end of pipe (m)	NA	1.30	NA				
Diffuser		NO	NO				
Number of ports							


22
MORRISBURG
Creek
Ngth
WT Tow h
Public
Canada
Island
Murphy
Islands
Murphy
Shoal
Clark
Island
Shoal
Broder
Doran Pt
Doran Shoal
(See SPEED NOTE)
(Voir NOTE SUR LA VITESSE)
237°
040°
220°
255°
GOOSE
ISLAND
SHOALS
NECK
Riverside
Heights
ST. LAWRENCE
PROVINCIAL PA
Macdonald L
Cryder
Shoal
Nichols
Hill
Island
Dyke / Digue
Coles Creek
Camping Area
Brady
Brook
10 m
17 m
260
280
300
LEGEND
Effluent Pipe
Effluent Pipe with
8 Port Diffuser
Water Intake Pipe
land lake
Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS
Diameter (100 cm) of
Storm Sewer Outfall
100 CSO
Diameter (100 cm) of
Combined Sewer Overflow Outfall
100 S
Diameter (100 cm) of
Sanitary Sewer Outfall
100 EO
Diameter (100 cm) of
Emergency Overflow Outfall
EO
Shore based Emergency
Overflow
(A)
Abandoned
N
SCALE
0 METRES 500 1000

23

PROVINCIAL PARKS

CRYSLER FARM BATTLEFIELD PARK

Marina

Bay

Memorial Mound

Cooks Pt.

Whitney Pt.

AULT ISLAND

Park/Parc

Upper Canada Village Historical Site Site historique

Dam/Barrage

Lt House/Phare

Museum

Bradford Pt.

BRADFORD ISLAND

Nichols Island

Hill Island

Dyke/Digue

Dyke/Digue No. 4

Dyke No. 5 A South Digue No. 5 A Sud

Dyke No. 5 A North Digue No. 5 A Nord

Dyke

WILSON HILL ISLAND

Wilson Hill Island

RIVER DRIVE — 280

Channel Buoyed Chenal balisé

Wilton Ridge Dyke

CANADA ETATS-UNIS

Wreck Shoal

Crysler Shoal

Steen Shoal

255°

262°

068½°

248½°

SCALE

0 METRES 500 1000

N

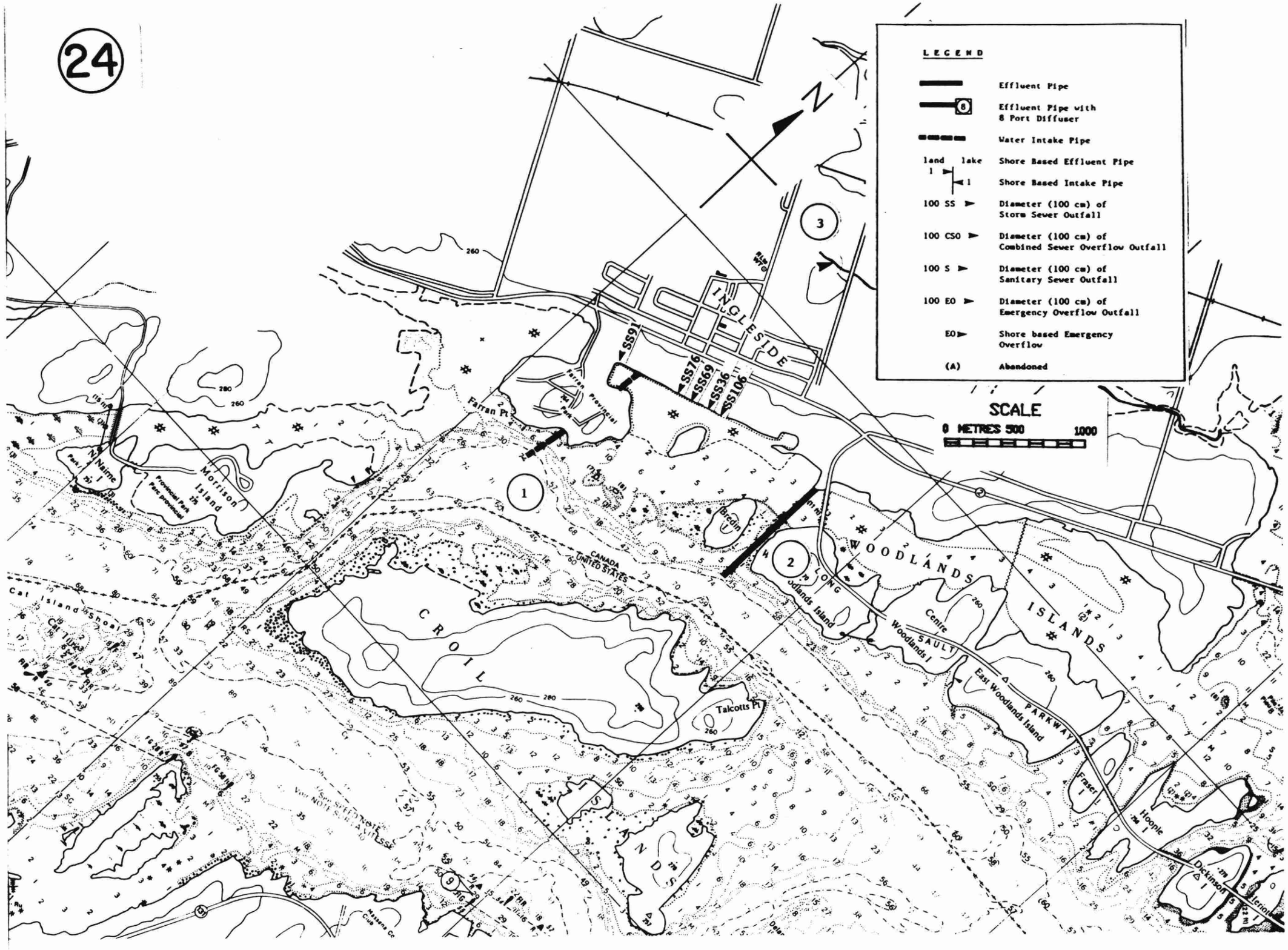
AREA

LEGEND

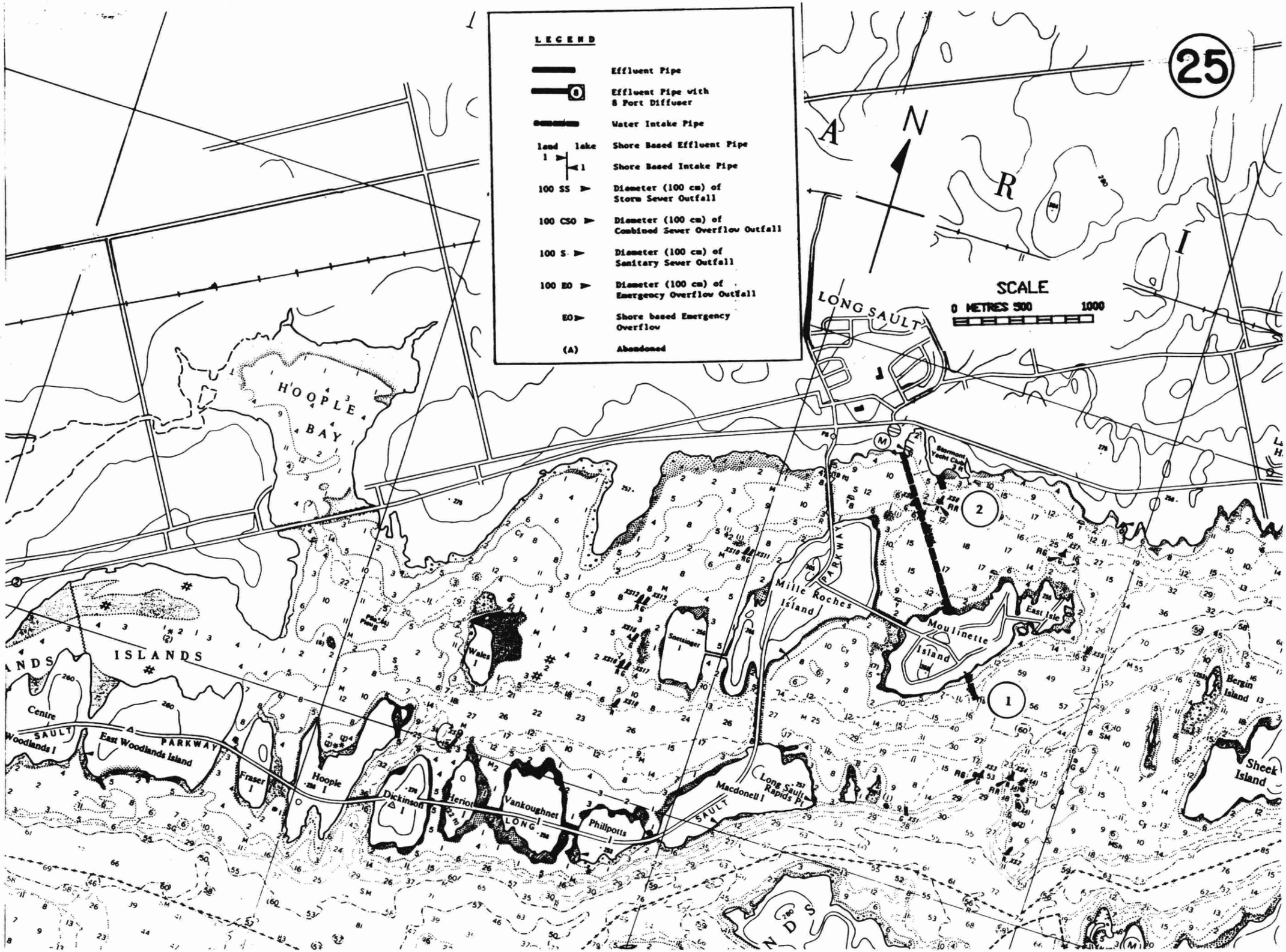
- Effluent Pipe
- 8 — Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land 1 lake — Shore Based Effluent Pipe
- 1 — Shore Based Intake Pipe
- 100 SS — Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO — Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S — Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO — Diameter (100 cm) of Emergency Overflow Outfall
- EO — Shore based Emergency Overflow
- (A) — Abandoned

Name	Osnabruck TWP WTP	Osnabruck TWP WPCP	Kraft Foods Ltd.				
Intake/Outfall	Intake	Outfall	Outfall				
UMIS/IMIS No.	220001003	120000140	0001940006				
Structure No.	1	2	3				
Map Number	24	24	24				
Operating Authority	MUN	MUN	IND				
Location	Ingleside	Ingleside	Ingleside				
Supplier/Receiver	St. Lawrence River	St. Lawrence River	Hoople creek				
Point of Discharge		Offshore	River Mouth				
Terminal Basin	St. Lawrence River	St. Lawrence River	St. Lawrence River				
Activity	Municipal Water Treatment	Municipal Sewage Treatment	Manufacturing of food products				
Process Type	Chemical Treatment	Primary Treatment	Milk is made into cheese				
Supply/Discharge Type	Continuous	Continuous	Continuous				
Treatment Type	Chlorination	NA	Extended Aeration				
Comments	Approximately 70% of water is used by Kraft Foods Ltd.						
Design Flow (1000m3/day)	8.20	1.50	NA				
Mean Annual Flow (1000m3/day)	4.10	0.91	3.00				
Pipe length from shore (m)	1020.00	61.00	NA				
Pipe Diameter (cm)	40.64	30.50	NA				
Water Depth at end of pipe (m)	10.70	4.60	NA				
Water depth above end of pipe (m)	9.10	4.60	NA				
Diffuser		NO	NO				
Number of ports							

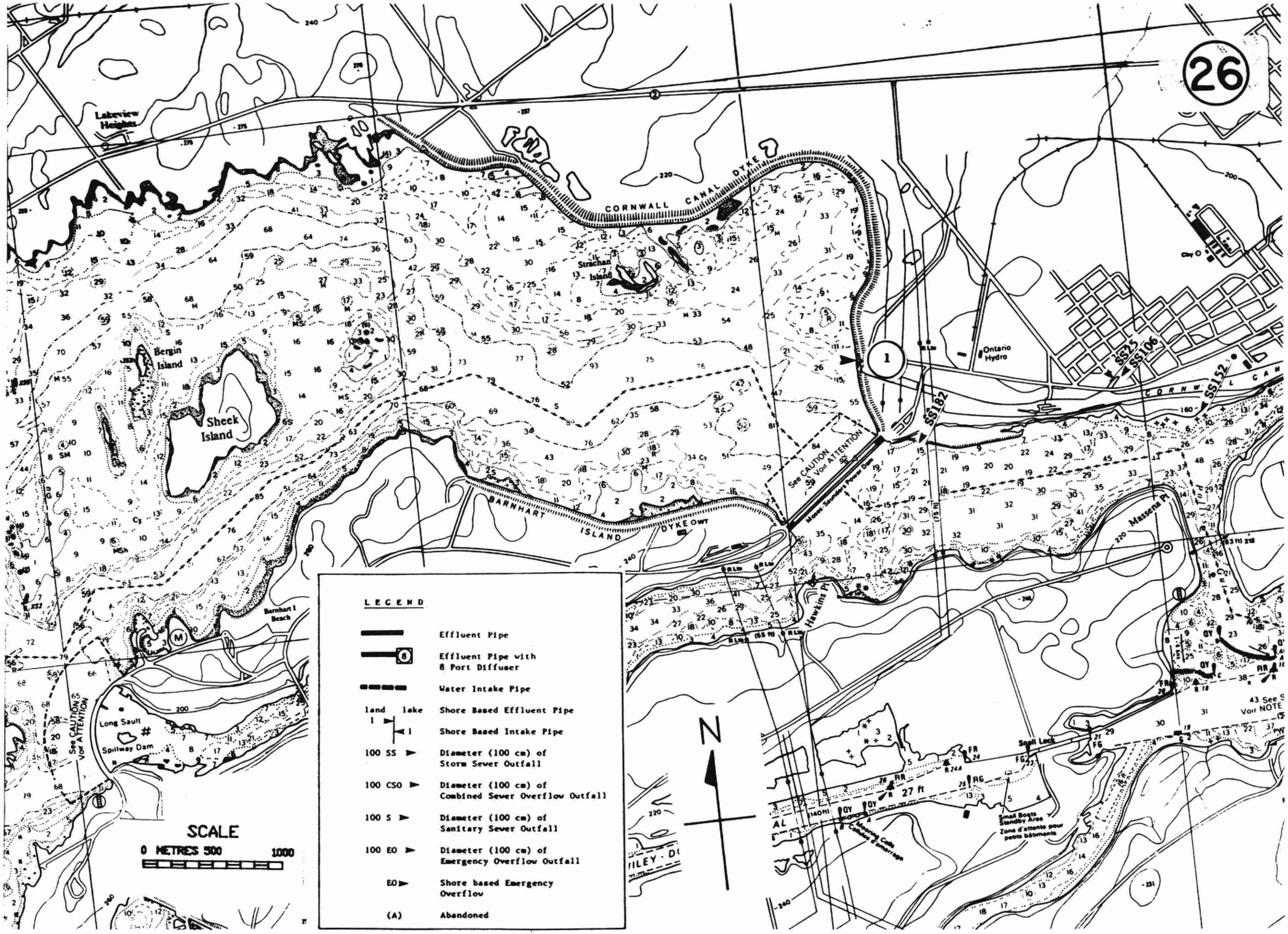
24


LEGEND
Effluent Pipe
8
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake
Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS
Diameter (100 cm) of Storm Sewer Outfall
100 CSO
Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S
Diameter (100 cm) of Sanitary Sewer Outfall
100 EO
Diameter (100 cm) of Emergency Overflow Outfall
EO
Shore based Emergency Overflow
(A)
Abandoned
SCALE
0 METRES 500 1000
N
INGLESIDE
SS91
SS76
SS69
SS36
SS106
Fairan Pt
Provincial Park
Morrison Island
Provincial Park
Parc provincial
Naime I
Bredin I
CANADA
UNITED STATES
CROIL
ISLANDS
Talcotts Pt
Cat Island Shoal
Cat I
WOODLANDS
ISLANDS
Woodlands Island
Centre
SAULT
East Woodlands Island
PARKWAY
Fraser I
Hoople I
Dickinson I
1
2
3
9

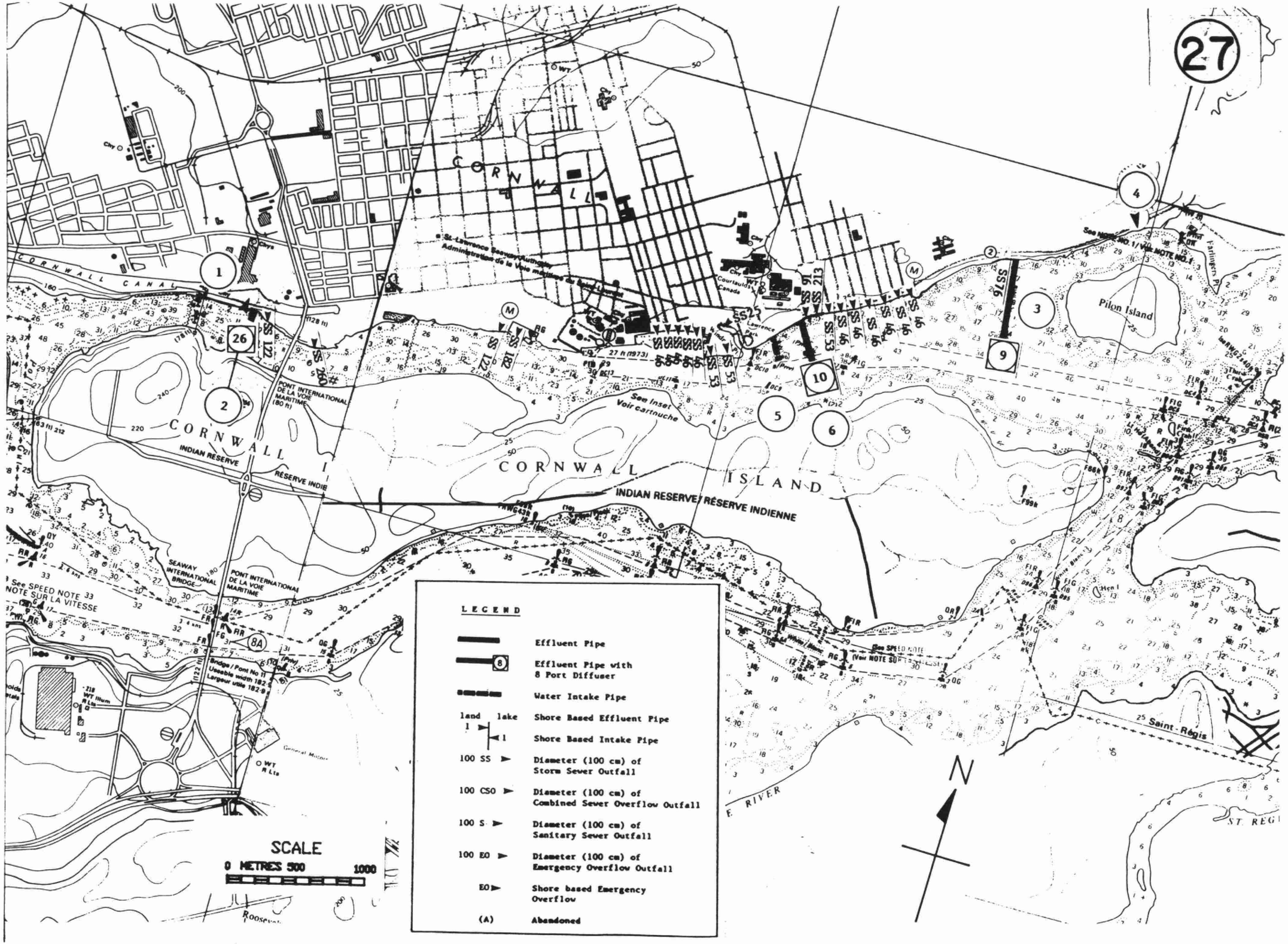
Name	Long Sault WTP	Long Sault WPCP					
Intake/Outfall	Intake	Outfall					
UMIS/IMIS No.	220000996	120000131					
Structure No.	1	2					
Map Number	25	25					
Operating Authority	MUN	MUN					
Location	Long Sault	Long Sault					
Supplier/Receiver	St. Lawrence River	St. Lawrence River					
Point of Discharge		Offshore					
Terminal Basin	St. Lawrence River	St. Lawrence River					
Activity	Municipal Water Treatment	Municipal Sewage Treatment					
Process Type	Chemical	Secondary					
Supply/Discharge Type	Continuous	Continuous					
Treatment Type	Chlorination	Conventional Activated Sludge					
Comments							
Design Flow (1000m3/day)	2.30	1.40					
Mean Annual Flow (1000m3/day)	1.20	0.77					
Pipe length from shore (m)	1910.00	110.00					
Pipe Diameter (cm)	36.00	38.00					
Water Depth at end of pipe (m)	10.10	3.00					
Water depth above end of pipe (m)	7.10	2.60					
Diffuser		NO					
Number of ports							

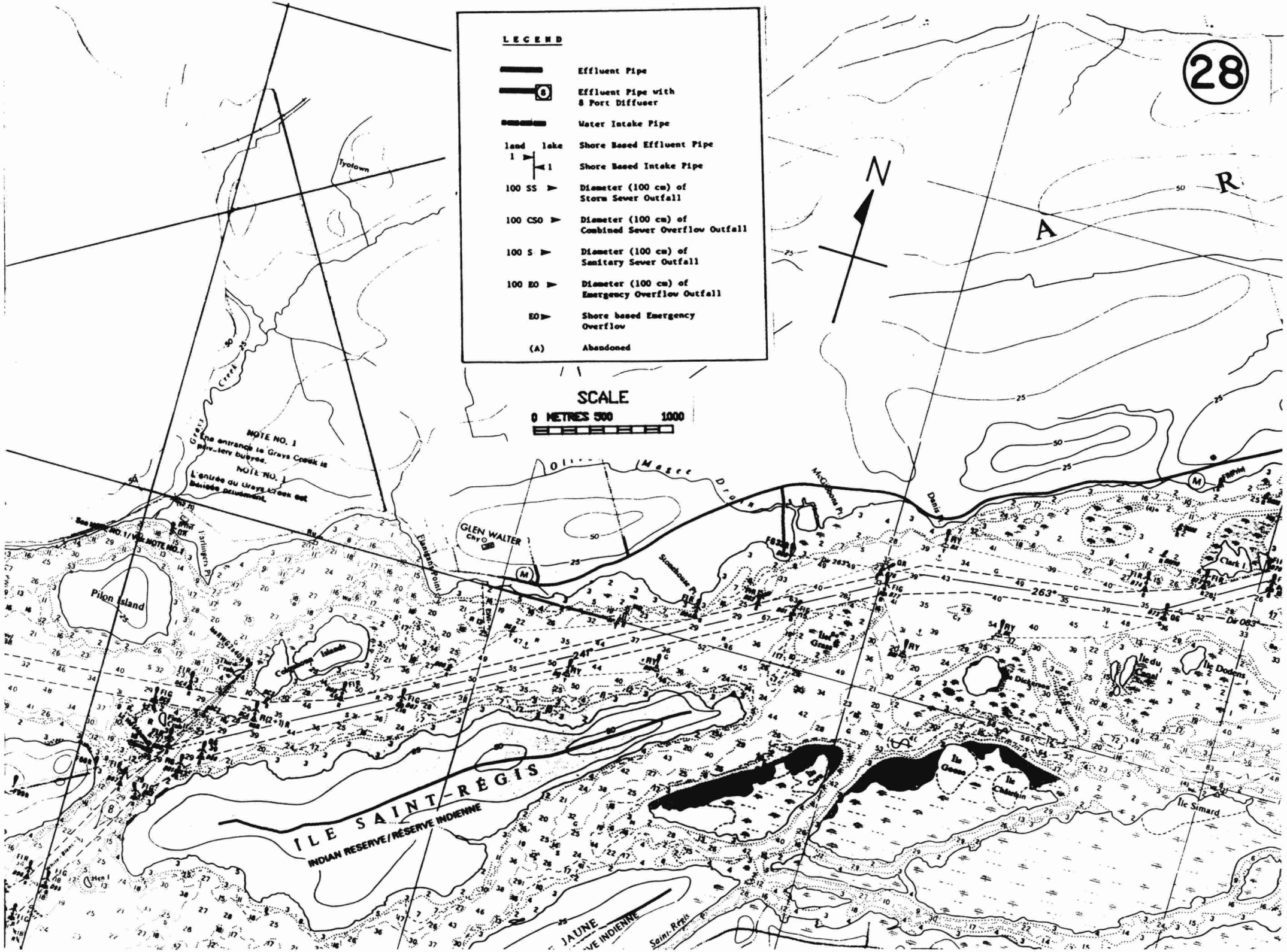

25
LEGEND
Effluent Pipe
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake
Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS
Diameter (100 cm) of Storm Sewer Outfall
100 CSO
Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S
Diameter (100 cm) of Sanitary Sewer Outfall
100 EO
Diameter (100 cm) of Emergency Overflow Outfall
EO
Shore based Emergency Overflow
(A)
Abandoned
SCALE
0 METRES 500 1000
N
HOOPLE BAY
LONG SAULT
Mille Roches Island
Moulinette Island
East Isle
Bergin Island
Sheek Island
Wales I
Centre Woodlands I
East Woodlands Island
PARKWAY
Fraser I
Hoople I
Dickinson I
Vankoughnet I
Phillpotts
Macdonell I
Long Sault Rapids Pt
SAULT
LONG
ISLANDS
Stormont Yacht Club
1
2

Name	Cornwall WTP						
Intake/Outfall	Intake						
UMIS/IMIS No.	220001049						
Structure No.	1						
Map Number	26						
Operating Authority	MUN						
Location	Cornwall						
Supplier/Receiver	Lake St. Lawrence						
Point of Discharge							
Terminal Basin	St. Lawrence River						
Activity	Municipal Water Treatment						
Process Type	Physical and Chemical Treatment						
Supply/Discharge Type	Continuous						
Treatment Type	Sand Filters Settling Tanks, Alum Fluoridation						
Comments	Pipe located at dam wall						
Design Flow (1000m3/day)	100.00						
Mean Annual Flow (1000m3/day)	45.00						
Pipe length from shore (m)	0.00						
Pipe Diameter (cm)	107.00						
Water Depth at end of pipe (m)	12.20						
Water depth above end of pipe (m)	NA						
Diffuser							
Number of ports							


26
Lakeview Heights
CORNWALL CANAL DYKE
Strachan Island
Bergin Island
Sheek Island
BARNHART ISLAND
DYKE OWT
Barnhart Island Beach
Long Sault Spillway Dam
See CAUTION Voir ATTENTION
Moses-Saunders Power Dam
Ontario Hydro
Massena Pt
Hawkins Pt
Snell Lock
Small Boats Standby Area
Zone d'attente pour petits bâtiments
Mooring Cells
Cellules d'amarrage
SS182
SS25
SS100
SS52
27 ft
LEGEND
Effluent Pipe
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake
Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS
Diameter (100 cm) of Storm Sewer Outfall
100 CSO
Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S
Diameter (100 cm) of Sanitary Sewer Outfall
100 EO
Diameter (100 cm) of Emergency Overflow Outfall
EO
Shore based Emergency Overflow
(A)
Abandoned
SCALE
0 METRES 500 1000
N

Name	Domtar Fine Paper	Domtar Fine Paper	Cornwall WPCP	Marimac Inc.	Courtaulds Ltd.	Courtaulds Ltd.	BCL
Intake/Outfall	Intake	Outfall	Outfall	Outfall	Intake	Outfall	Outfall
OMIS/IMIS No.	0000140301	0000140301	110000132	NA	0001900000	0001900000	NA
Structure No.	1	2	3	4	5	6	6
Map Number	27	27	27	27	27	27	27
Operating Authority	IND	IND	MOE	IND	IND	IND	IND
Location	Cornwall	Cornwall	Cornwall	Cornwall	Cornwall	Cornwall	Cornwall
Supplier/Receiver	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River
Point of Discharge		Offshore	Offshore	Shore		Offshore	Offshore
Terminal Basin	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River	St. Lawrence River
Activity	Pulp & Paper Mfg.	Pulp & Paper Mfg.	Municipal Sewage Treatment	Textile Manufacturing	Synthetic Textile Manufacturing	Synthetic Textile Manufacturing	Synthetics Producer
Process Type	Kraft Pulp process applied to logs and chips producing fine paper	Kraft Pulp process applied to logs and chips producing fine paper	Primary Treatment	Weaving and Dyeing 100% polyester fabric	Rayon production via reacting dissolved sulphite pulp	Rayon production via reacting dissolved sulphite pulp	Viscose supplied by Courtaulds is made into Cellophane
Supply/Discharge Type	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous
Treatment Type	Screened & chlorinated	Primary Clarifier	Anaerobic Digesters Sludge Dewatering P removal-Continuous and Chlorination	None	None	None	None
Comments		Also discharges effluent from Cornwall Chemicals, and 2 CIL plants	Liquid Sludge hauled to Lagoon site			Share outfall with BCL	Share outfall with Courtaulds Ltd.
Design Flow (1000m3/day)	150.00	150.00	109.00	NA	160.00	11.60	NA
Mean Annual Flow (1000m3/day)	84.00	84.00	47.64	324.50	68.10	10.00	4.10
Pipe length from shore (m)	3.00	92.00	607.00	68.00	150.00	280.00	280.00
Pipe Diameter (cm)	91.00	122.00	107.00	15.00	120.00	45.00	45.00
Water Depth at end of pipe (m)	7.00	7.00	11.58	NA	6.00	11.00	11.00
Water depth above end of pipe (m)	7.00	6.00	10.36	NA	6.00	11.00	11.00
Diffuser		YES	YES	NO		YES	YES
Number of ports		26	9			10	10


27
CORNWALL
CORNWALL CANAL
CORNWALL ISLAND
INDIAN RESERVE
RESERVE INDIENNE
INDIAN RESERVE/ RÉSERVE INDIENNE
Pilon Island
Saint-Régis
PONT INTERNATIONAL DE LA VOIE MARITIME (80 ft)
SEAWAY INTERNATIONAL BRIDGE
PONT INTERNATIONAL DE LA VOIE MARITIME
See Inset Voir cartouche
See SPEED NOTE 33
NOTE SUR LA VITESSE
See NOTE NO. 1/ Voir NOTE NO. 1
Bridge / Pont No 11
Useable width 182.9
Largeur utile 182.9
27 ft (1973)
F. RIVER
ST. REGIS
N
SCALE
0 METRES 500 1000
LEGEND
Effluent Pipe
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake
Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS Diameter (100 cm) of Storm Sewer Outfall
100 CSO Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S Diameter (100 cm) of Sanitary Sewer Outfall
100 EO Diameter (100 cm) of Emergency Overflow Outfall
EO Shore based Emergency Overflow
(A) Abandoned


LEGEND
Effluent Pipe
8
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake
Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS
Diameter (100 cm) of Storm Sewer Outfall
100 CSO
Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S
Diameter (100 cm) of Sanitary Sewer Outfall
100 EO
Diameter (100 cm) of Emergency Overflow Outfall
EO
Shore based Emergency Overflow
(A)
Abandoned
SCALE
0 METRES 500 1000
28
N
NOTE NO. 1
The entrance to Grays Creek is navigable by boat.
NOTE NO. 1
L'entrée du Grays Creek est navigable par bateau.
Tyotown
Grays Creek
GLEN WALTER
Pilon Island
Cherry Island
ILE SAINT-REGIS
INDIAN RESERVE/RÉSERVE INDIENNE
Mosse Drain
Ile Gene
Ile Chalupin
Ile Simard
Ile Dodems
Clark I.
263°
241°
Dir 083°

Name	Charlottenburgh TWP WTP	Richmond Die Casting Ltd.	Richmond Die Casting Ltd.				
Intake/Outfall	Intake	Intake	Outfall				
OMIS/IMIS No.	NA	NA	NA				
Structure No.	1	1	2				
Map Number	29	29	29				
Operating Authority	MUN/IND	IND/MUN	IND				
Location	Summerstown	Summerstown	Summerstown				
Supplier/Receiver	St. Lawrence River	St. Lawrence River	Creek to St. Lawrence R.				
Point of Discharge			River Mouth				
Terminal Basin	St. Lawrence River	St. Lawrence River	St. Lawrence River				
Activity	Municipal Water Treatment	Die Casting Plant	Die Casting Plant				
Process Type	Physical Treatment	Physical Treatment	NA				
Supply/Discharge Type	Continuous	Continuous	Continuous				
Treatment Type	Filtration	Filtration	None				
Comments	Intake shared with Richmond Die Casting Ltd.	Intake shared with Charlottenburgh TWP					
Design Flow (1000m3/day)	0.80	0.80	2.60				
Mean Annual Flow (1000m3/day)	NA	NA	2.60				
Pipe length from shore (m)	92.00	92.00	0.00				
Pipe Diameter (cm)	30.00	30.00	30.00				
Water Depth at end of pipe (m)	3.00	3.00	0.00				
Water depth above end of pipe (m)	2.00	2.00	0.00				
Diffuser			NO				
Number of ports							

29

LEGEND

- Effluent Pipe
- 8 — Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land 1 ▶ lake — Shore Based Effluent Pipe
- ◀ 1 — Shore Based Intake Pipe
- 100 SS ▶ — Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO ▶ — Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S ▶ — Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO ▶ — Diameter (100 cm) of Emergency Overflow Outfall
- EO ▶ — Shore based Emergency Overflow
- (A) — Abandoned

SCALE
0 METRES 500 1000

N

T A

First Concession Drain

Fraser Creek

Summerstown

CAMERONS POINT

HAMILTON ISLAND

Renshaw Island

Stanley Island

Little Hog

Ile Simard

Ile du Dauphin

St. Francis Island

Highlander Sh

Horseback Shoal

CAMERONS ISLAND

Fraser Pt

Fraser Creek

Park/Parc

Cameron Cove

263°

239½

Dir 085

Dir 226

226

30

LANCASTER

RAISIN RIVER

SOUTH LANCASTER

401

LANCASTER BAR

229°

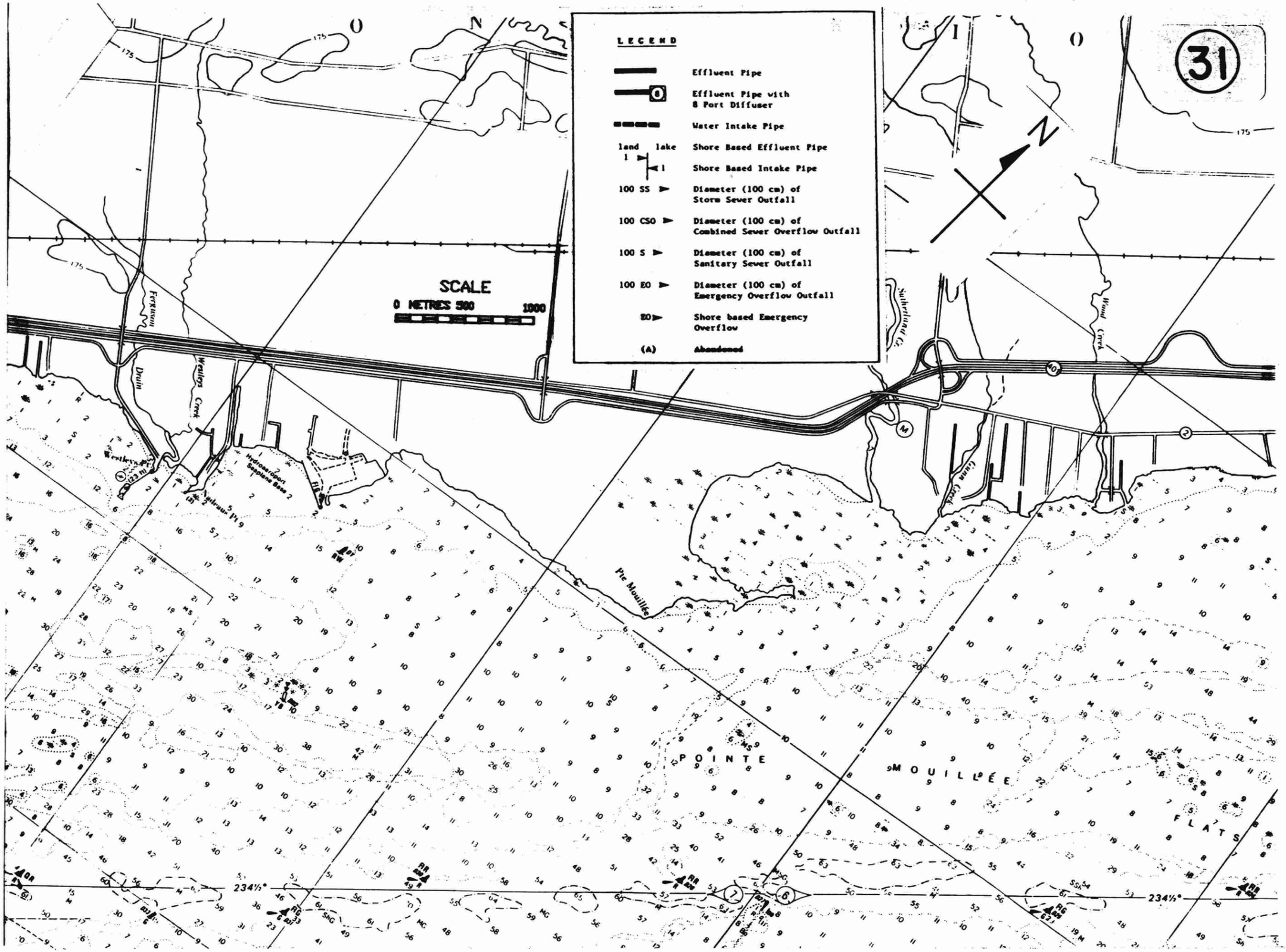
234½°

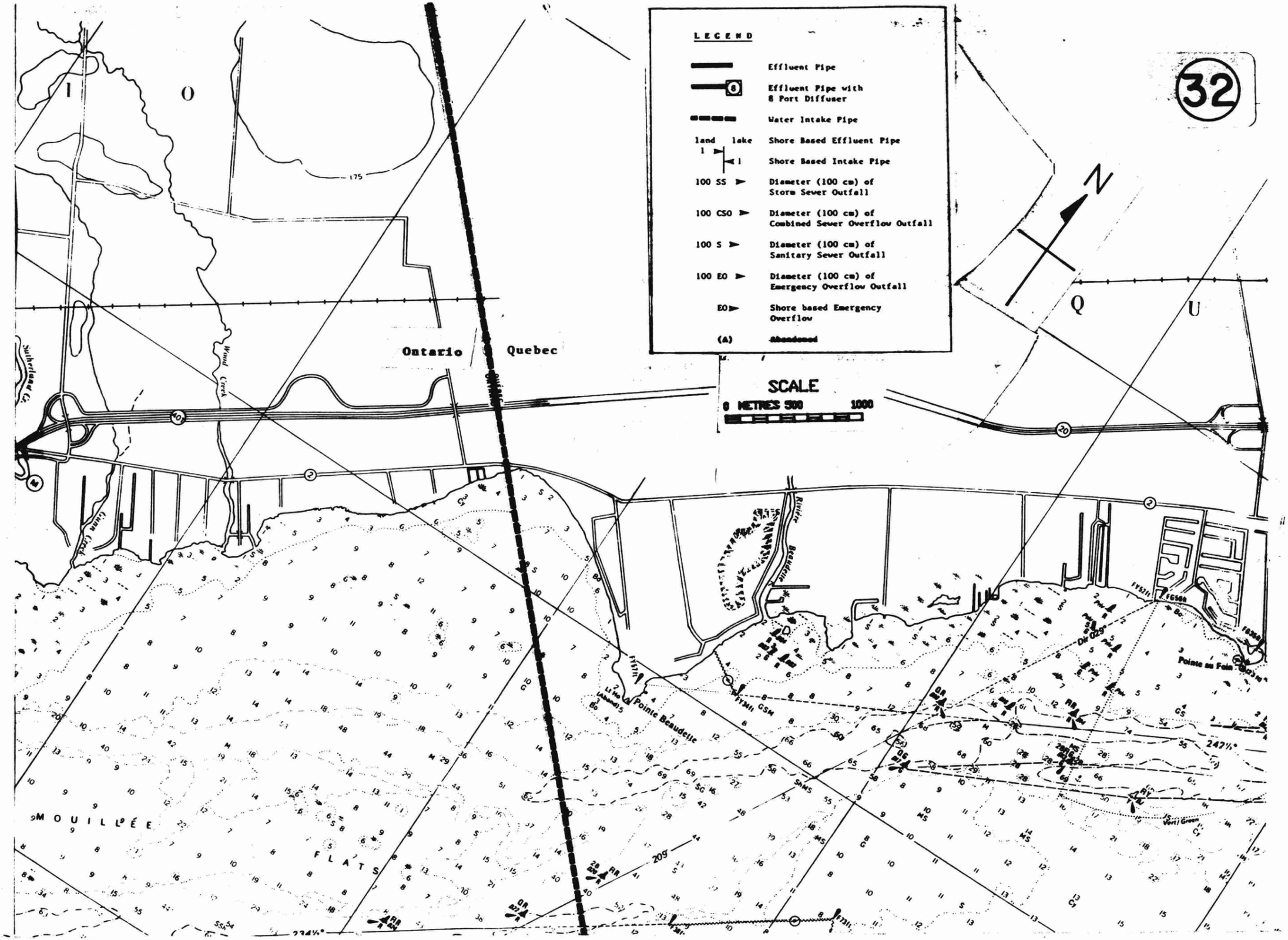
SCALE

0 METRES 500 1000

LEGEND

- Effluent Pipe
- Effluent Pipe with 8 Port Diffuser
- Water Intake Pipe
- land / lake — Shore Based Effluent Pipe
- Shore Based Intake Pipe
- 100 SS — Diameter (100 cm) of Storm Sewer Outfall
- 100 CSO — Diameter (100 cm) of Combined Sewer Overflow Outfall
- 100 S — Diameter (100 cm) of Sanitary Sewer Outfall
- 100 EO — Diameter (100 cm) of Emergency Overflow Outfall
- EO — Shore based Emergency Overflow
- (A) — Abandoned


LEGEND
Effluent Pipe
Effluent Pipe with 8 Port Diffuser
Water Intake Pipe
land lake
Shore Based Effluent Pipe
Shore Based Intake Pipe
100 SS ► Diameter (100 cm) of Storm Sewer Outfall
100 CSO ► Diameter (100 cm) of Combined Sewer Overflow Outfall
100 S ► Diameter (100 cm) of Sanitary Sewer Outfall
100 EO ► Diameter (100 cm) of Emergency Overflow Outfall
EO► Shore based Emergency Overflow
(A) Abandoned
SCALE
0 METRES 500 1000
31
Ferguson Drain
Wealtys Creek
Hydrocarbon Sapphire Base
Pte Mouillée
POINTE MOUILLÉE
FLATS
Sutherland Cr.
Wood Creek
Lamar Creek
234½°
234½°


LEGEND
Effluent Pipe
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Water Intake Pipe
land lake Shore Based Effluent Pipe
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100 SS Diameter (100 cm) of Storm Sewer Outfall
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100 S Diameter (100 cm) of Sanitary Sewer Outfall
100 EO Diameter (100 cm) of Emergency Overflow Outfall
EO Shore based Emergency Overflow
(A) Abandoned
SCALE
0 METRES 500 1000
32
N
Ontario
Quebec
Pointe Beaudette
MOUILLÉE FLATS
Wind Creek
Sutherland Cr.
Cairn Creek
Beaudette River
Pointe au Foin
Vent Creek
I
O
Q
U
175
209
247½°
294½°

(16141)
TD/223.3/C43/Vol.VIII/MOE